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Abstract

State Research Coordinating Units (RCU) for vocational education are evaluated in this study. Three separate questionnaires were used for RCU directors, State directors of vocational education, and a sample of local and university personnel involved in vocational education. Questionnaire respondents totaled 306, divided in five categories, with response rates in parentheses, as follows: (1) RCU directors, 39 (85%); (2) State directors of vocational education, 36 (72%); (3) university personnel, 67 (82%); (4) university-centered RCU director supervisors, 12 (67%); and (5) local directors of vocational education, 152 (78%). Programs in seven States were studied in depth as case studies of functioning Research Coordinating Units. Findings and recommendations are discussed for strengthening the nationwide RCU program, and a model for the evaluation of similar Federal projects is described. Samples of questionnaires used in the study and response data are appended. (JK)

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RESEARCH COORDINATING UNIT
PROGRAM EVALUATION

Final Report

Project No. 8-0232
Grant No. OEG-9-8-000232-0073(085)

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Some Abbreviations Used

Ag-Ed - Agricultural Education

AIM - Abstracts of Instructional Materials in Vocational and Technical Education

ARM - Abstracts of Research and Related Materials in Vocational and Technical Education

Business Ed - Business Education

ERIC - Educational Research Information Center

Home Ec - Home Economics

Industrial Ed - Industrial Education

Occ-Ed - Occupational Education

RCU - Research Coordinating Unit

S.D. - State Director

T & I - Trades and Industry

U.S.O.E. - United States Office of Education

Voc-Ed - Vocational Education

Voc-Tech - Vocational Technical

CHAPTER I

THE BACKGROUND AND PURPOSES OF THE STUDY

Background

The Vocational Education Act of 1963 (P.L. 88-210) carried special provisions (Sections 4(a) (6) and 4(c)) to meet the need for developing an integrated, coordinated research and development thrust in vocational technical education. For the first time in the fifty year history of federal involvement in this area of education, specific recognition was given an aspect of program development and implementation which previously had received only token acknowledgement. Never before had vocational education acts spelled out so clearly the need for coordination of efforts on the part of vocational educators everywhere; never before had there been such a strong focus on the needs of local and state agencies for involvement in coordinated research and development efforts.

Francis Keppel, U. S. Commissioner of Education, sent a memorandum on April 9, 1965, to chief state school officers, executive officers of state boards of education and state directors of vocational education inviting state departments and universities to submit proposals for establishment of state research coordinating units. Part of the rationale for the research coordinating unit program is stated in terms which recognized that many state departments of education were not adequately staffed to assure conduct of desirable research and training programs under the 1963 Act, and suggested that an appropriate first step would be the establishment of occupational research and development units where productive results could be obtained.

The call from Commissioner Keppel for establishing research coordinating units for vocational education in the states represented an attempt to meet the criticisms voiced in congressional hearings on P.L. 88-210. One of the major criticisms was that research in vocational education was sporadic, uncoordinated, and chiefly directed toward program operations. In addition, purposes of the act included provisions "...to assist (states) to maintain, extend, and improve existing programs of vocational education, to develop new programs of vocational education, and to provide part time employment for youths who need the earning from such employment to continue their vocational training on a full time basis...."

The invitation to submit proposals was accepted rapidly by twenty-four states, which have now had units in operation for three years or more. Twenty more states have research coordinating units which have been in operation for less than three years. Two had proposals approved since the beginning of this study. Of the forty-four units which have operated more than six months, twenty-six are administered through state departments of education, fourteen through universities, and four through combinations or foundations.

Objectives

Program evaluation is essential to provide information which may be used to make rational decisions concerning the future of the program. Evaluation data may well be used to make decisions whether or not a given program should be continued, modified, or discontinued. Even more than this, the identification of strengths and needs within any program can assist continuing efforts toward improvement. It is in this spirit that federal projects involve provision for evaluation, and that this particular study was undertaken.

Four main objectives were listed in the proposal for this study. These are: (1) to determine the extent to which federally defined objectives of the RCU have been achieved; (2) to determine the extent to which federally defined objectives of the RCU program are congruent with the objectives of individual units; (3) to determine relation between achieving objectives for the RCU program and antecedent and independent variables including federal intervention factors, staff, administrative structure, communication pattern, location, length of operating time, and operational pattern; (4) to determine effectiveness with which funds have been used by comparing benefits derived from a planned network of coordinating units and independent vocational research operations with benefits measured in terms of the image of vocational education, cooperation between vocational education and employment agencies, implementation of research in school programs, involvement of business and industry, development of programs for those with special needs.

Procedure

This project proceeded according to the following sequence: (1) develop tentative check-list questionnaire; (2) select Task Force; (3) meet with Task Force; (4) develop new tentative instruments as per Task Force discussion; (5) mail tentative instruments to Task Force members for review; (6) revise instruments including suggestions of Task Force; (7) select sample of local and university respondents and case study states; (8) mail questionnaires; (9) develop case study interview guides; (10) develop instrument to evaluate reports in U.S.O.E.; (11) conduct case study interviews; (12) analyze data; (13) prepare report.

During the first month of the project the evaluation team developed tentative instruments which seemed to be in accord with the objectives of this study as stated in the proposal to the U. S. Office of Education. This involved debating the actual intent of the objectives as stated in the proposal as well as developing and refining instruments which would best meet these objectives. This process resulted in a set of tentative instruments which were presented to the Task Force in a rough form as a basis for discussion and revision. These instruments were largely check-list items, and an attempt was made to develop parallel instruments for the three sample populations to be included in the study. That is, parallel items were to be included on the questionnaire which was to be sent to RCU directors, state directors of vocational education and local and university directors of vocational education programs.

Task Force members were selected after consultation with the U. S. Office of Education and with other experts in the field of research in occupational education. Representation included RCU directors, occupational education researchers, and state directors of vocational education.

During the Task Force meeting, several important developments occurred. To begin with, there was a shift to an overall assessment of the program rather than an evaluation of individual programs. The intent became to present the RCU program as it is rather than to attempt to make evaluative statements about individual programs.

The Task Force then recommended three separate data-gathering instruments: a questionnaire for RCU directors, mostly open-ended; a State Director questionnaire, partially open-ended and partially check-list; and a local and university questionnaire, mainly check lists. The result was three essentially different and non-comparable data gathering instruments.

Finally, the Task Force recommended that at least six states be studied in depth and that those case studies be included as examples of functioning RCU programs.

After the Task Force meeting, the evaluation team prepared a new set of instruments which were mailed to Task Force members for their reactions. The questionnaires were then revised to include their suggestions. Concurrently, an interview guide for use in case studies was developed and an instrument to evaluate materials and reports sent by RCU's to the U. S. Office of Education was outlined.

The time allotted for this project was nine months; the team of six men began work on July 1, 1968 and the project terminated on March 31, 1969.

The Sample

The people participating in the study came from five groups as shown in Table I.

Table I

Group	Number Selected	Number Returned	Percent Returned
A. RCU Directors	46	39	85%
B. State Directors of Vocational Education	50	36	72%
C. University Personnel	82	67	82%
D. University Centered RCU Director Supervisors	18	12	67%
E. Local Directors of Vocational Education	196	152	78%
Total	392	306	78%

Three separate questionnaires were constructed. One questionnaire was sent only to the RCU directors, the second to the state directors of vocational education and the university centered RCU Director's supervisor, and the third to the university personnel and local directors of vocational education.

Every RCU director and every state director of vocational education received a questionnaire, as did each immediate administrative superior of each director of university affiliated RCU's.

In selecting the sample group for the university personnel and the local directors of vocational education, only those states having an RCU in operation were considered. A letter was sent to each state department of education requesting directories of educators from which addresses for vocational educators could be obtained and randomly selected. As many such directories were not available, a second letter was sent to the state directors of vocational education requesting: (1) a listing of the directors of vocational education in local and high school districts and (2) a listing of all heads of departments of vocational education in four year colleges or universities with the stipulation that if such lists did not exist they could send the names and addresses of five people in each of the positions, or as many as available up to five. A third procedure, that of randomly selecting the names and addresses from the National Council of Local Administrators directory was used to complete the sample group for states not responding to the letters. As the university personnel for those states not replying were unknown, a questionnaire was sent to two randomly selected universities with a request that they be forwarded to the head of the Vocational Education department.

Difficulties Encountered

A number of difficulties were encountered in designing and conducting this study. Included were: (1) the lack of clarity of objectives as stated in the project proposal resulted in considerable lost time. Instruments could not be constructed until objectives of the study were clarified to the satisfaction of the research team; (2) the sharp modification of project emphasis by the Task Force and agreed upon by the project officers in the U. S. Office of Education necessitated radical modification of instrumentation developed for the study; (3) extreme difficulty in locating directors of local occupational education programs and university personnel in occupational education resulted in delays. Statewide or national lists of local directors would be an aid to researchers in occupational education; (4) considerable delays were encountered because respondents failed to return completed questionnaires. Three follow-up letters, including one giving a final deadline, were required. The last completed questionnaire was returned four months after the initial mailing; and (5) the large volume of written comments gathered on the RCU director's questionnaire was very difficult to summarize and present in usable form.

Plan of the Report

This report is presented in four chapters. Chapter II presents abstracts of the data gathered during the project. Chapter III presents case studies of RCU's in states which were studied in depth. The final chapter summarizes the findings and discusses various recommendations for strengthening the RCU program, as well as a model for the evaluation of similar federal projects. The report is very brief in order to facilitate the reader's getting the key points. Detailed information from which the report was developed is contained in the appendices.

CHAPTER II

ABSTRACTS OF FINDINGS

Introduction

Because the questionnaires contained large sections of open-ended responses, this section of the report is included to synthesize important findings in a concise form. All data abstracted in this section are included in greater detail in appropriate appendices.

The information contained in this section is abstracted from questionnaires submitted by RCU directors, state directors of vocational education, and vocational educators in local school districts and universities.

RCU Directors' Perceptions of Priorities of Objectives

The priorities which RCU directors established obviously governed the disposition of resources within the unit. One way to determine directors' perceptions of priorities was to ask them to rank in order of priority the six objectives they believed to be most important for their operation. A list of fifteen objectives was presented to them and a sixteenth category was left open to enable them to specify additional objectives which they wanted to include. The results are presented in Table I.

It is apparent that there was little consistency of agreement among the directors as to what objectives should receive the highest priorities. Objective 11, "To stimulate and encourage occupational education research and development activities in state departments,

TABLE I

TABULATION OF RCU OBJECTIVES SELECTED BY RCU DIRECTORS FOR EACH PRIORITY RANK

OBJECTIVE NUMBER	PRIORITY RANK					
	1	2	3	4	5	6
1	6[a]	7[b]	4[c]	8	4	2
2	3	2	5	4	3	2
3	0	3	0	2	1	0
4	0	2	4	1	1	2
5	5	0	7	3	6	1
6	1	1	1	0	1	4
7	1	1	1	4	4	1
8	1	1	5	2	3	5
9	1	0	2	0	3	0
10	0	2	2	3	2	3
11	12	9	3	0	5	1
12	2	3	1	3	0	5
13	0	4	1	2	0	6
14	6	1	0	4	0	3
15	0	0	1	0	0	1
16	0	2	2	3	0	2
TOTAL	38	38	39	39	33	38

This data represents the number of RCU directors selecting a specific numbered objective (in the order they appeared on the RCU and State Director questionnaires for each priority rank). Example: Objective number one (1) was selected by six (6[a]) RCU directors as the most important objective (priority rank number one) toward which their RCU is working; seven (7[b]) RCU directors selected it as priority rank number two; four (4[c]) as priority rank number three; etc.

local school districts, colleges and universities, and nonprofit organizations" received the highest number of choices for both first and second level priorities, but only 31.6 percent of the directors chose it as their first priority and 15.8 percent selected objective 1, "To disseminate information on progress and application of occupational research" as a first priority, while the remaining directors' selections were scattered among eight other items. Only 23.7 percent selected objective 11 as a second order priority, while 18.4 percent selected item 1, and the remaining selections were scattered among eleven of the other fourteen statements of objectives. A visual analysis of the remaining columns of the table reveals no significant patterning of responses. It is significant, however, that more than half the respondents selected objective 11 as either the first or second order priority, and about one-third of the directors selected objective 1 as either the first or second order of priority.

A statement of the objectives listed will be found on page 1 of the RCU Director Questionnaire in Appendix A, page 76 of this report.

Four objectives, numbers 3, 6, 9, and 13 were added to the original list of objectives in the U. S. Office of Education proposal establishing the RCU's. Item 16, as previously indicated, was open for directors to add their own objectives to the list. This was done for two reasons. First, it provides some indication of the freedom exercised within RCU's to go beyond the officially stated objectives. Second, such statement of objectives beyond those officially stated might help to establish the limitations within which RCU's were actually operating. Each of these items was selected by RCU directors among the top six priorities a number of times. Objective 3 was selected six times; objective 6 was selected eight times; objective 9 was selected six times; and objective 13 was selected thirteen times. Nine directors specified additional objectives under item 16.

Analyses of Open-ended Responses

The questionnaire mailed to RCU directors was composed almost exclusively of open-ended comments. The sections which follow contain abstracts of the information gathered from those comments. Additional details of responses are included in Appendix B, page 108.

Obstacles to Achievement of Objectives

Directors perceived a variety of obstacles to their achievement of the objectives of the RCU. These may be categorized under seven items.

Staffing-general

Twenty-two of 39 responding RCU directors (56.4%) indicated the greatest impediment to the achievement of RCU objectives is the problem of staffing. Other comments indicate the problem of staffing is closely tied to availability of funds for salaries.

Staffing-unavailability

The second problem relating to staffing is recruiting qualified personnel for research activities. Thirteen of the 39 RCU directors (33.3%) indicated considerable difficulty in finding people trained to do research type activities and interested in working in the field of research.

Funds

Thirteen RCU directors (33.3%) indicated insufficiency of funds and uncertainty of funding have impeded the achievement of RCU objectives.

Research Climate

Fifteen RCU directors (38.5%) stated that a climate within the state opposed to research and development activities impeded the successful completion of RCU objectives. Problems here include difficulties relating to the climate within the agencies themselves and in relation to the state at large.

Structural Difficulties

Ten directors (25.6%) indicated that the political situation within the state, the administrative organization of the RCU, or the relationship of the RCU to its sponsoring agency were impediments to successful RCU operation. Communication difficulties severely impair the operation of these RCU's.

Internal Impediments

Seven RCU directors (17.9%) indicated internal problems of the unit hindered the accomplishment of RCU objectives.

Outside Impediments

Four RCU directors (10.2%) mentioned problems which relate specifically to outside agencies and the relationship of the RCU to these agencies. The U.S.O.E. and the field of occupational education were mentioned as areas with which relationships are difficult.

RCU Strengths

Three basic strengths were observed which facilitated the achievement of RCU objectives.

Inter-agency cooperation and administrative relations

Of the thirty-nine RCU directors responding, twenty-nine (74.3%) mentioned this area as accounting for the strength of their RCU. These comments indicate the importance which RCU directors are placing on the establishment of good working relationships both with the agency in which they are housed and with other agencies relative to vocational education in the geographic area.

Achievements-goals

Seventeen of the RCU directors (43.6%) indicated the strengths of their RCU related to their goals, to their achievements, or to abilities of the RCU.

Staffing

Fifteen of the RCU directors (38.5%) indicate that one of their major strengths is the staff itself or the patterns used in staffing their RCU's.

Choice of Five Best Projects

This question immediately followed a question in which RCU's indicated the five best projects with which their RCU had been involved. RCU directors were asked to explain why they chose these five projects.

Met needs of the field

Twenty-eight RCU directors (66.1%) stated reasons which fall within this category for choosing the five projects which they had listed above. From these comments it appears that many RCU's choose their research projects on the basis of the perceived needs of the field rather than on the basis of the extent to which these projects will meet the stated objectives of the RCU.

Objectives

Nine RCU directors (23.1%) stated reasons for choosing the topics which relate to achieving the objectives for which the RCU was established.

Services Provided to Colleges and Universities

Thirty-six RCU directors (92.3%) indicated they provide services to colleges and universities. The services which were provided fall largely under the areas of dissemination and consultation but they also involve training, funding of projects, and the coordination of research activities. The distribution of responses was as follows:

Dissemination

Eighteen RCU directors (46.1%) provide services involving dissemination of occupational education and occupational research information to colleges and universities.

Consultation

Fifteen of the RCU directors (38.5%) indicated that they provide consultant services to colleges and universities in their area.

Training

Nine RCU directors (23.1%) provide services which involve, in one way or another, the training of university and college personnel.

Funding

Ten RCU directors (25.6%) are involved in one way or another with the funding of research or other kinds of projects.

Coordination

Five RCU directors (12.8%) provide coordination of research activities for services to colleges and universities.

Services Provided to State Department of Education

Consultation

Twenty-four of the RCU directors (61.5%) indicate that they provide consultative services to the state department of education. Services include confering with state directors on research needs, evaluation of projects, and providing other research information.

Clerical

Six RCU directors (15.4%) indicate that the services provided to the state department involve duties which are clerical, including the preparation of reports.

Divisional Responsibility

Four RCU's (10.2%) indicated that their responsibilities to the state department involve being another division of that department.

Conduct Research

Five RCU directors (12.8%) indicate that they provide staff and facilities to conduct research projects for the state department of education.

Services Provided to Other State Agencies

Responses by RCU directors to this question indicate that various RCU's provide services to other local agencies ranging in number from one to nine. A listing of these agencies is provided in Appendix page

Involvement with the ERIC Center at Ohio State University

Of the RCU directors responding, thirty-six (92.3%) responded yes to this item. Regarding the kind of involvement with the ERIC Center there was a strong similarity between responses. The RCU's submit their reports to the Center for publication and they receive AIM and ARM and various abstracts, journals, and so on in return. In addition, RCU's have variously complete collections of microfiche.

Involvement with Regional Education Laboratories

Twenty-three RCU directors (59.0%) indicated that they are involved with the Regional Education Laboratory. Their comments indicate that the involvement is a very limited one with only five directors indicating actual participation with the Regional Education Laboratory. Most activities center around the mutual sharing of mailing lists.

Involvement with the Regional Office, U.S.O.E.

Thirty-six of the responding RCU directors (92.3%) indicated that their RCU is involved with the regional office of the U. S. Office of Education. This involvement hinges heavily around the small grant program through the regional offices with seventeen RCU directors indicating that participation involves the small grant program. Three RCU directors indicate direct involvement with the Regional Laboratory in directing the development of proposals which will be submitted to the U.S.O.E.

Services Provided to Local School Districts

Thirty-six of the responding RCU directors (92.3%) indicated that their RCU does provide services to local school districts within the state.

Consultation

Nineteen of the RCU directors (48.7%) indicated that the services provided local school districts are consultative activities. This includes the defining of research problems, preparing research proposals, setting up criteria for follow-up trial programs.

Dissemination

Eight RCU directors (20.5%) indicate dissemination activities constitute the services provided to local districts. This includes communication through newsletters, providing information from ERIC files, and providing reference and curriculum materials.

Active Involvement

Active participation in projects with local school districts was indicated by thirteen RCU directors (33.3%). This includes the funding of projects, performing needs studies, conducting local surveys, conducting research training workshops, and implementing research.

Responses of State Directors of Vocational Education

Ranked Objectives

State directors were asked to select six objectives from the list of fifteen RCU objectives and rank them in order of priority, one to six. The results are presented in Table II.

As was true of the RCU directors, the state directors of vocational education chose objective 11 more frequently than any of the others. However only 19.4 percent chose this as a first order priority and only 22.8 percent chose it as a second order of priority. For first priority, the selections were made of thirteen objectives, and in the second level priorities choices were made of ten objectives. It is apparent that the state directors of vocational education were in no more agreement than the RCU directors.

TABLE II

TABULATION OF RCU OBJECTIVES SELECTED BY STATE DIRECTORS OF VOCATIONAL EDUCATION FOR EACH PRIORITY RANK

OBJECTIVE NUMBER	PRIORITY RANK					
	1	2	3	4	5	6
1	4	2	6	5	2	6
2	6	0	7	1	2	2
3	0	0	0	2	0	2
4	3	7	1	6	1	2
5	2	0	3	1	2	3
6	0	0	0	1	0	0
7	2	2	1	2	4	2
8	0	3	1	3	2	5
9	1	0	1	0	1	0
10	1	3	2	2	3	0
11	7	8	5	1	5	2
12	3	4	2	4	4	2
13	1	3	1	3	0	4
14	3	1	0	3	5	3
15	1	1	2	0	3	1
16	1	0	1	1	0	0
TOTAL	36	35	33	36	34	35

This data represents the number of state directors selecting specific numbered objectives (as they appeared on the RCU and State Director questionnaires for each priority rank).

State Directors' Relationships with RCU's

State directors of vocational education were also asked to respond to a number of questions which would indicate their relationships to RCU's in their states. It is noteworthy that most cooperation between the state directors and RCU directors related to matters pertaining to the RCU budget. From the information obtained, it seems apparent that RCU directors, for the most part, were responsible to the state directors for financial management, either directly when a part of the state department of education, or indirectly when outside the department.

State directors contact the RCU personnel for information in four categories: (1) information regarding plans for area vocational schools; (2) information regarding follow-up of vocational education students; (3) data on vocational education evaluations; (4) formation of a master plan for the state in vocational education.

When asked how they felt about the staffing of the RCU, thirty-two of the respondents (87.5%) felt that the RCU was not adequate in terms of numbers and ability to conduct their activities, and thirty-one (86.1%) felt that RCU's were understaffed. Lack of funds is stated as the primary limitation upon RCU operation, and low salary schedules hinder the employment of adequate staff.

One half of the responding state directors felt that research results were being shelved instead of implemented. However, most respondents indicated participation with the Ohio State University ERIC, and a majority felt that the material was relevant and up-to-date.

The state directors listed the following five areas as the most significant undertakings of the RCU: (1) coordination of on-going research projects; (2) developing research consciousness among vocational educators; (3) development of follow-up studies; (4) initiation of evaluation on the secondary level;(5) developing surveys in the area of home economics and adult education.

Some weaknesses were noted by the respondents: (1) inability to follow-through and fund research projects generated by the RCU; (2) failure to implement research findings; (3) insufficient research capability; (4) frequent staff changes and lack of identity for RCU as a separate entity, distinct from the state department of education when housed within it.

Responses from Local School and University Personnel

The questionnaire for local school and university personnel was sent to 278 people, eighty-two of whom were professors of vocational education in universities and colleges in states with RCU's. The remainder of the sample were local directors of vocational education in high school districts, presidents of technical colleges, or vocational education staff in junior colleges. Of the 278 questionnaires sent out, 219 or 78.8 percent, were completed and returned. Sixty-seven were received from professors in universities, and 152 were received from local directors. Of the sixty-seven professors responding, 28 or 41.8 percent, had no knowledge of the RCU in their state. Of the 152 local directors responding, seventy-two or 47.4 percent, knew nothing of the RCU's function. The remaining 119 respondents provided the information upon which the local and university section is based.

The questionnaire that was sent to the local and university personnel is broken into eight sections. Appropriate sections will be presented, followed immediately by the findings from that section.

A. "Has the RCU helped stimulate research in your geographic region?"

Yes 79 No 23 (77.4% yes)

Positive respondents felt that the RCU had stimulated research in the following six ways: (1) distributing RCU publications whether they be monthly newsletters, memorandums, or special bulletins; (2) through consultative services which were provided by the RCU for the local researcher; (3) through conferences and seminars conducted by the RCU; (4) through establishing a resource center at the research coordinating unit headquarters; (5) by writing newspaper articles for the people in the field; and (6) by providing in-service training programs in vocational education research.

B. "Has the RCU helped to improve research competency in your region?"

Yes 70 No 31 (69.3% yes)

Respondents felt that the RCU had improved research competency by using the same six methods as listed in the previous section.

C. "Has the RCU helped you to conduct research in your region?"

Yes 50 No 51 (49.5% yes)

In addition, sixty-seven of eighty-nine of the respondents (75.3%) indicated that they had done research without the help of the RCU and had done it before the RCU has even been established. Those that did feel the RCU had helped conduct research felt that two processes utilized by the RCU which gave them the most help were consultative services provided by the RCU and the help given them by the RCU in obtaining funds. The type of research that was done by the local and university researchers was practical and immediately applicable. There were four main kinds of research done: (1) surveys of vocational education issues and needs; (2) vocational education training follow-up projects; (3) occupational analyses; and (4) studies providing information and evaluation of current vocational education programs.

D. "Has the RCU coordinated your research with the research of other agencies?"

Yes 58 No 22 (72.5% yes)

Generally, the RCU does not monitor research for local and university staff.

E. "Has the RCU provided you with information on progress and application of occupational education research?"

Yes 81 No 19 (81.0% yes)

Again, respondents felt that services were provided by the six methods mentioned earlier. These are: (1) research coordinating unit publications; (2) consultative services; (3) conferences and seminars; (4) resource centers; (5) writing newspaper articles; (6) providing in-service training program in vocational education research.

F. "Does the RCU maintain a current and up-to-date file of related data on occupational and vocational research?"

Yes 64 No 6 (91.4% yes)

The same six methods listed in the above section were indicated as those used by RCU's. When asked if the RCU used and disseminated ERIC materials, a majority of respondents replied affirmatively.

H. "Has the RCU identified, or helped to identify, problems in vocational and occupational education in your region?"

Yes 67 No 29 (69.8% yes)

Respondents indicated the information from the RCU helped implement needed research in the areas identified. The process used by the RCU to instigate research in needed areas was: (1) identifying the problem areas; (2) creating a priority list of needed research; (3) sending out reports to the people in the field.

An item by item analysis of the tabulated data revealed no significant differences on the variables (1) state department affiliated RCU's versus university affiliated RCU's, (2) RCU's in operation less than two years versus RCU's in operation more than two years, and (3) university respondents versus local director respondents. Rather the tabulated responses obtained from the different variables were closely similar to the total responses.

Summary

The foregoing synthesis of responses to questionnaires indicates a significant variance in selection and priority ranking of objectives among RCU and state directors, between RCU directors from state to state, and between RCU and state directors taken as a group.

Objective number 11, "To stimulate and encourage occupational education research and development activities in state departments, local school districts, colleges and universities, and nonprofit organizations" was the most frequently chosen objective of both groups of directors. However, only 31.6 percent of the RCU directors ranked this objective number one, while 19.1 percent of state directors placed it number one. From this point on, there is little consistent agreement either as to selection or ranking of priority objectives. This would indicate rather divergent views of goals and purposes of RCU's from state to state, and that states are utilizing a "state's rights" approach in ordering priorities which will meet the needs of occupational education research in any given state.

It is interesting to note that while few states selected non-USOE objectives, these objectives were listed as a first priority by one or more directors.

RCU directors perceived a variety of obstacles to achievement of objectives. Chief among these are problems of staffing, both as to adequacy of numbers and to the availability of competent researchers, and funding. About one-third noted lack of a favorable research climate in the state, political situations, or administrative organization problems as impediments. Strengths of RCU's center around inter-agency cooperation and positive administrative relations for nearly three-fourths of the respondents.

In general, local and university respondents indicated little, if any knowledge of the RCU, its role, function or existence. Those who did have knowledge of and working relationships with an RCU generally were positive toward it. No less than 70 percent of these respondents indicated the RCU had helped them by stimulating research, improving their competency to do research, coordinating their research with others, providing them with adequate, up-to-date research materials and information and assisting in identifying issues and problems in occupational education.

CHAPTER III

CASE STUDIES

This chapter contains detailed case studies of seven research coordinating units. These particular RCU's were chosen by approximating the overall distribution of RCU's in the nation on several variables. These variables include: (1) state department versus university affiliation of the RCU; (2) RCU's classified operationally functional (at the time of initiation of the study) for more than two years versus those operating less than two years; and (3) location in high population density state versus low population density state. Six of the case study RCU's were chosen according to these variables, while one was chosen on the basis of its nomination by Task Force members as an RCU which was having functional difficulties.

Based on the variables noted, the case study RCU's reflect characteristics as follows:

Affiliation: state department - 5; university - 2

Period of Operation: two years or more - 4; less than two years - 3

State Population Density: sparse to moderately sparse - 4; dense to moderately dense - 3

It is not the intent of the investigating team to focus attention upon specific RCU's. The purpose of the case study is to show in some detail the functional characteristics of different RCU's.

Procedure

An interviewer or team of interviewers visited each of the seven selected states and used an interview guide developed by the research team. See Appendix I. Individuals interviewed included the RCU director, RCU staff members, the state director of vocational education, state department staff, personnel of other related agencies, local vocational education personnel, and vocational education staff members at universities. Information gathered in the interviews was then compiled into the following case studies.

Case Study #1

"The expertise in occupational education in this state is lodged here at the university." This statement is offered as an overriding rationale for the establishment and operation of the RCU in this state at the state university by both the RCU director and his immediate supervisor. It is fair to state that the total scope and organizational operation of the RCU is based upon this assumption.

This RCU is located in the Occupational Education Department of the Graduate School of Education at the large land grant university. It has been operationally functional for less than two years, and is located in a relatively sparsely populated state. A staff of one director, an associate director, four part-time graduate research assistants and a unit secretary are charged with the responsibility for planning and implementing the primary objective. As stated by the RCU director, the central focus is, "Stimulate, coordinate, and disseminate occupational education research." The RCU also depends upon close coordination with the department staff to carry out many of its activities.

Those interviewed at the university included the RCU director, the occupational education department director, the department's director of research, and three graduate research assistants attached to the department and to the RCU. Others interviewed included the state director of vocational education and his administrative assistant, the director of an urban secondary vocational school, and a vocational department head at a state college.

Most of these people agreed with the statement which opens this case study. They saw the location of the RCU as a feature which contributes to its operational success. The RCU director said, "We have here in the department and RCU, readily available young men who are on the cutting edge of occupational education in this state." Others added the following comments relating to positive operational features of the RCU:

> "...the opportunity to improve research competence of graduate assistants."
>
> "They (the RCU) are willing to make themselves available to people who want to bounce off some ideas about research."
>
> "The RCU is assisting local schools to use their own resources...."
>
> "They have the strength of being a stimulator and innovator of local research."
>
> "Having it here at the university has upgraded the general attitude of these people toward research to the point where they hold it in high esteem."

On the negative side, both the RCU director and the department head indicated problems in securing competent, trained occupational education researchers as the chief impediment to successful operation. The Unit Director said, "We are not content to take a warm body with some skills. We are locked into a university system which involves tenure and we need help in building this program." This statement does not imply a negative attitude toward location of the RCU. The issue is one of commanding adequate salaries. Other deficiencies include improper location of the resource library, an inadequate information collection and dissemination program, and problems in synchronizing the university reporting system with that of the State Department and the Federal government. "There is often up to a seven month time lag in getting these things together," said the RCU director. This is especially relative to authorization and obligation of funds.

This RCU appears to be developing a specific program for coordination with related education and research agencies. All respondents indicated progress had been made in coordinating RCU activities with the vocational education division of the State Department of Education where "They haven't had much experience with research." The RCU director indicated an attempt was being made to establish a small arm of the RCU in the State Department.

Relationships between the RCU and the State Department appear to be good and clearly understood by both agencies. A like relationship exists between the university as a whole and the State Department. The State Director of Vocational Education is very much aware of the RCU as an agency, but has less than a working knowledge of the entire program, objectives and purposes of the RCU.

Other groups or agencies with which the RCU has established working relations include the State Education Association; a private research organization; meetings with a group of area vocational school directors; the regional educational laboratory; and with the state Industrial Development Division.

Most of the effort in this state appeared to be in planning for future cooperative research activities and for coordinating information collection and dissemination. The RCU director felt considerable progress has been made in the area of cooperating with other agencies, and that the future for accomplishment was bright.

Graduate research assistants agreed that the RCU is improving competency of researchers because "the opportunity to be assigned to the RCU and to work on various phases of its activities could not help but improve research competence." Additional improvement of research competency was achieved by a workshop coordinated and conducted by the RCU for seventeen vocational educators. The RCU staff stated that long range plans include provision for cooperative workshops and seminars throughout the state for improving research competence of educators at all levels.

Many respondents felt that it was too early in the operation of the RCU to say that specific issues and problems of vocational education had been identified. It was suggested that certain key issues and proble[illegible]ould be identified cooperatively with an advisory council. Concern was expressed that this council had not yet been formed. However, it was expected that the advisory council would serve a vital function in determining the future direction of the RCU.

Generally, the respondents did not feel the RCU was well known throughout the state. The RCU director felt that knowledge of the RCU would come through involvement with people at the local level rather than through an advertising campaign.

The RCU director felt that the emerging philosophy of this RCU is "future oriented." It is still in the developmental stage and definite long range planning now is essential to avoid compartmentalization and fragmentation of services. Local vocational directors interviewed supported the director's commitment to planning.

The RCU director also emphasized the importance of stimulating research at a local level. He stated, "Local people must get involved in determining their own research needs and in doing something about it. The RCU can plant an idea with them, but it is important that we (RCU) withdraw from a project once it is well under way."

The future of occupational education and related research in this state appears to be closely tied to politics. The new governor was identified as research oriented "because he is committed to bringing new business and industry into the state and believes in researching a program before moving." However, his actions and recommendations relating to occupational education were criticized by the RCU director. He said, "Emphasis has been on labor economics. MDTA was revised and given a blank check, but there has been little emphasis upon public school occupational education programs."

In summary, this RCU appears to be moving carefully and systematically toward achieving its goals. There is commitment to planning and organization, research stimulation at a local level, improvement of research competency at all levels, and improving the statewide attitude toward occupational education research.

Case Study #2

This RCU is located in the State Department of Education of a large, densely populated state and has been in operation for more than two years. The staff includes a director, a research and evaluation consultant, and graduate assistants who work on a periodic or project basis. All persons interviewed in this state agreed that the information services provided by the RCU were its most valuable activity. One university professor felt that the coordination of research was a valuable RCU function. He felt that research should be conducted at the university rather than at the RCU. In agreement, the State Director of Vocational Education stated, "They (the RCU) will never conduct any research as long as I'm around." He believes the function of an RCU is to coordinate on-going research, not to instigate new research. The acting RCU director, however, does not agree. He feels the RCU should be actively involved in initiating research. He was formerly associated with an RCU where theses and dissertations were partially funded by the RCU and results were published.

Another professor interviewed thinks that the RCU should conduct research, but that RCU's separated from the university have difficulty maintaining momentum. He feels strongly that the RCU should be located in an atmosphere conducive to conducting research, i.e. the university.

The second most valuable aspect of this RCU operation is help provided local researchers in writing proposals. Many agreed there is real need for this service. For example, a local curriculum director thought the positive attitude displayed by one RCU staff member while helping the curriculum director write, set up, and fund a follow-up study on the graduates of the high school was important.

The State Director of Vocational Education feels that a problem with this RCU is that it has not identified the need to gather information on a national basis. The RCU director would like to see procedures changed to make information more readily available to potential users. He would like to see graduate students included in the RCU operation. The RCU staff feels that all on-going research in this state should be monitored by the RCU. One professor said, "The RCU should act like a miniature U. S. Office of Education and contract for research." He would like to see internships in the RCU. The most important RCU problem identified in this state is one of communication. The curriculum director felt that all school districts in the state should be made aware of the existence of the RCU as something other than an extension of the state division of vocational education. He felt that a large part of the state was probably in the dark regarding RCU operation, and he thought even some RCU staff members do not understand its role.

An RCU staff member thought that funding problems were functionally crippling the RCU as it must fund and operate on a calendar year basis while federal funds are appropriated on a fiscal year basis. He said there was a great deal of unnecessary confusion as a result of the time lag in funding.

A number of opinions were expressed regarding the location of the RCU. The university interviewees thought the RCU might be better located at the university. The local people, since they looked at the RCU as an operative of the state department of education, felt the unit should be located there. The RCU director thought there should be more university involvement. The State Director of Vocational Education felt the unit was located where it ought to be, in the state department of education. (He said he didn't care where the RCU was located, but he thought it was easier for it to get "contaminated" if it was located in the university).

All individuals interviewed concurred that there had been definite increase in the amount of occupational education research. No one, however, when asked, could point to specific examples. One man said he thought there was a definite increase, but he didn't know if it could be attributed to the RCU. The same is true of the image of vocational education. All agreed that it is changing. All agreed that it was moving to a more positive image across the nation. However, one man felt the RCU hadn't been in operation long enough to directly effect the image of vocational education.

Many comments on the political atmosphere of RCU operation were vague. Most of those interviewed said that there was no observable animosity between the RCU and the state department of education.

It appears that this RCU is centering its efforts on collection and dissemination of occupational education information and on coordination of research projects initiated by other vocational education agencies. The extent to which other RCU objectives are being met is somewhat clouded by emphasis on these areas, and by the uncertainty about its role. The State Director appears to exert considerable control over the RCU. Local vocational education personnel are generally not familiar with the RCU's existence or purpose.

Case Study #3

In this state the immediate needs of vocational education which might be met by RCU involvement center around vocational education guidance, curriculum materials, and publications, according to the State Director of Vocational Education.

The State Director listed as an outstanding feature of the RCU its location at the State Department of Education, where "it can serve as a change agent or try-out agency when we have the responsibility and opportunity to get such try-out programs into action." Also cited as positive features were community surveys that the RCU conducted; placement of vocational education students on jobs as results of RCU stimulated local programs; the development of a follow-up instrument for all vocational education programs; and the help extended by the RCU in standardizing counseling programs and services throughout the state.

The major feature of the RCU in this state is its involvement in the development of a master plan which involves redesigning vocational education programs for high school and post-secondary education. The State Director cited this as the outstanding achievement of the RCU and said, "Had it not been for the RCU we would be where we were three, ten, or fifty years ago in vocational education."

It appeared that considerable emphasis has been placed by the RCU on program development at the area vocational school level. In this state, area vocational schools serve the thirteenth and fourteenth grade level. Such activities as "Tech Day" and "Tech Night" programs were cited by several respondents as outstanding results of cooperative efforts between area school vocational directors and the RCU.

The RCU director noted as limiting operational features lack of resources and services available to coordinate closely with local systems; lack of a clear identification as a "Research Coordinating Unit"; lack of public information about RCU function; lack of coordinated and supervised meetings for technical high schools in the state; and lack of close cooperation between vocational teacher training at the state university and research activities at the state level.

This RCU is located within the division of vocational education in the State Department of Education under the "Leadership Council." It is identified as a part of the Leadership Council rather than as a separate research agency. This RCU has been in operation for less than 2 years, and is located in a state with above average population density. The staff of the RCU includes a director, an associate director, an occupational education research state supervisor, a technical writer, a reports and statistical analyst, and a program evaluation specialist, plus secretarial help. It is noteworthy that the RCU Director has other responsibilities in the State Department of Education. This was cited by some as a situation which may have caused some problems of coordination within the State Department and with post secondary and secondary vocational education programs. The actual title of the RCU Director is "Associate Director for Leadership Services."

Some inter-agency collaboration has occurred between the RCU and the State Department of Labor. There have been few other cooperative activities with additional state agencies.

Most of those interviewed in this state indicated that the image of vocational education is moving in a positive direction but few respondents felt the RCU was in any way responsible for the change. The RCU has apparently had no direct success in stimulating occupational education research outside its own office, increasing the amount of research or the competency of researchers, or improving the amount and accessibility of occupational education information. The RCU Director stated his concern for these deficiencies and his intent to shift the directions of the unit and broaden its base to better serve such needs. The State Director felt that the amount of occupational education research had been increased and that which has occurred has been directly stimulated by the RCU. He said, however, that this was limited to the emphasis which has been placed on stimulating program development and public relations activities at the post-secondary level. The State Director agreed that the RCU had not yet activated a research center to the extent which he hoped it would. Working relations with local schools has been limited. RCU contact effort has been primarily directed at the post-secondary level.

Speaking on the subject of identification of issues and problems in vocational education, the State Director said, "We started out on that note. Some of them (issues and problems) have not been picked up, such as the challenge to Negro vocational educators to see the value of vocational education." RCU staff personnel indicated visits to local programs and local directors of vocational education had had some positive affect on identifying issues and problems throughout the state.

This RCU does initiate and conduct research. Over fifty research projects have been completed since the RCU was established. Before it was created, "Little research was being conducted in this state in vocational education, none of it was being coordinated, and most of it was not applicable" according to interviews with RCU staff members. These same people felt that research competency has been improved because the RCU is advising and consulting with people involved in vocational education project proposals.

Interviews with local vocational personnel indicated the RCU has visited regularly at the area technical schools. One of these respondents said that the RCU has helped to get the area schools together. Another area school director said that the RCU has served as a catalyst for area school administrators in working together and has been an agency to which they could look for coordination and sharing one anothers problems. He said he believed that such activities as Tech-Day and Tech-Night in this state and other RCU supported activities would not have occurred had the RCU been located at the state university or had the RCU not existed at all. He said, "The state university is not as effective or practical in its attitude toward research as is the State Department of Education."

An interview with the chairman of the vocational education division at the state university revealed a different view of vocational education and purpose and function of the RCU. The division chairman said, "If it (the RCU) has an outstanding feature, it has been in focusing attention on research." He would have preferred to have the RCU located in his division at the state university. Had it been there, he would have divided the responsibilities for occupational education research among the various departments in occupational education teacher training, and provided for coordination with the State Department of Education. He said, "It never occurred to me during the development of the RCU movement that it (the RCU) could be set up anywhere else than at the university." He said further, "I insist, we would like to have a strong unit of this type in this department.... I cannot see how it can work elsewhere." He did note however, that there is still a provision in the operation of the RCU for funding four graduate assistants on this staff. He said, "Somebody forgot to change the graduate assistant provision when the RCU was moved from the university location to the State Department location." This individual is listed as "Associate Director of the Research Coordinating Unit" but he did not feel that he had been included in many decisions regarding the operations and functions of the RCU.

He feels that the RCU has a definite place in most states. He is concerned with the identification of needed research areas and feels that this is not being done. He further believes that the RCU must provide the expertise to see that the research done is of a useable quality and that the RCU must give attention to coordination of research activities to prevent duplication of effort. He was also concerned about collection and dissemination of occupational education information.

Regarding the future role of the RCU, the State Director said, "It is bright, critical, and essential. The role needs enhancement and consideration for human beings must be developed."

The political climate appears favorable to the on-going operations of the RCU according to those interviewed at the State Department. The agricultural education personnel in this state have built a positive political image over the years and have maintained a political climate favorable to agricultural and vocational education. Because the RCU is associated with this area in vocational education, the political climate has been good and appears to be positive for the future, according to a majority of respondents.

Collectively, those interviewed in this state agreed that the RCU can and has served a vital function in vocational education. While the area of concentration of RCU activities has apparently been at the post secondary level (area vocational technical schools) there appears to be an attitude which indicates that a broader basis of operation is in sight. Several respondents indicated their belief that the RCU must expand its operations in the area of information collection and dissemination, in improving competency of researchers, and in increasing the amount of practical research stimulated by the RCU. There is without question a considerable difference of opinion between the State Department and the university as to the best location for the RCU in this state. It appears that much attention must be given to future coordination and cooperation between these two vocational education agencies if the RCU is to successfully broaden its base of operations and serve its functions. This state has utilized the RCU as an agency for specific activities and has not broadened the base of operations to achieve all of its objectives. It appears that increased staff, coordination and cooperation with university personnel and equal attention to all education levels are necessary for future RCU success.

Case Study #4

This RCU is one of three studied in depth which has been in "operation" for less than two years. It is located in a state with a moderately heavy population, and is located in the State Department of Education.

Beginning conventionally, this RCU was formed by a coalition of four universities. This coalition was sanctioned by the state board of education. That state board, prior to 1965, also served as the state board for vocational education. It differs from most state boards, however, in that it is composed of various commissions only loosely related to one another, each of which performs a different function. In 1963, a vocational act in the state led to the founding of a vocational-technical college. The college is separate from the Department of Public Instruction. This separation led eventually to the formation of a state board for vocational education. The state board of vocational education was to be a policy making board, and it was in the position of dividing federal dollars between the college and the public schools. However, once it became operative, it strongly favored the college and has been reluctant to provide funds for public education.

In developing the proposal for establishing the RCU, one of the four universities took the position of leadership. The RCU was to be funded with state funds and the proposal was written within the boundaries of what the state could afford. However, the state director unexpectedly took the proposal to Washington, D. C. and obtained federal funds for setting up the RCU. It was then necessary to rewrite the proposal to meet the new specifications.

The university spearheading the development of the proposal appointed the Director and the Associate Director of the RCU. There was also to be an Associate Director at each of the other three universities. Each of the universities provided the necessary staff and became involved in the early stages of a statewide manpower survey. However, before the staffing could be completed a new State Superintendent of Public Instruction was appointed, and the State Director of Vocational Education was eliminated. The new Superintendent of Public Instruction assumed control of the state universities, because he felt that the control of the universities should be in the State Office of Public Instruction. Several months later, the acting RCU director discovered the new Superintendent of Public Instruction had named a new RCU Director. The superintendent had removed the RCU from the control of the universities and set it up within the state department.

The Acting RCU Director was not informed regarding the changes. He was not aware that he was no longer directing the RCU, nor was he aware that the RCU was no longer centered in the university. He received no notice of dismissal and only discovered that he had been replaced by reading about the appointment of a new RCU Director in a State Department of Public Instruction Bulletin.

The placement of the RCU in the State Department of Public Instruction was very distasteful to the governor. Consequently, whenever the RCU Director tried to get staff, the positions were vetoed.

The RCU attempts to apply new techniques in the field. Funds are used for exploratory programs, demonstration programs, and experiments conducted in the field. The RCU works actively in the area of curriculum development. However, in spite of the implied high activity in the area of innovative program development the RCU Director who is the only full time RCU staff member states that most educators in the state would not know what the RCU was, nor would they have ever heard of it, a situation which was verified by the interviewer.

The state now has a new governor, and the Superintendent of Public Instruction and the governor now belong to the same political party. The RCU Director believes that this will have tremendous implications for the RCU. Staffing of positions will now be cleared, and the RCU will now be under the Department of Public Instruction. Money for research will be assigned to the RCU for coordination. However, relationships between the RCU and the universities will apparently remain poor.

Case Study #5

In the eyes of the various agencies and individuals with which the RCU operates, this case study can be summed up in one word--"Success."

Two characteristics appear to contribute to the perceived success of this RCU. These are its location and organization and its intensive focus upon a single goal. This RCU is located in an agency on a university campus, closely affiliated with the university, but not an agency of the university. It is also located in the same city as the State Department of Education, which enables it to have close ties with that agency. In the eyes of the RCU administrator this location makes funds available which would not otherwise be provided. In addition, the research resources of the university are available to the RCU without the encumbrance of a bureaucratic structure. This RCU has operated for more than two years and is located in a sparsely populated state.

While the focus of this RCU upon a single goal, a statewide manpower needs survey, may appear narrow, this focus has been largely responsible for the feelings of success experienced by the RCU within its state. This singular focus has enabled the staff to concentrate its efforts in one direction and to develop other objectives as secondary outcomes for achieving the primary objective. This has also enabled the staff to participate in more than one cycle of the same project so they have been able to learn from mistakes during the first run. This has resulted in a much more efficient operation during the second year. The staff has gradually built in additional objectives as their skills in achieving the primary objective have increased.

The pattern of staffing, in this RCU, has also been a factor in its success which it has achieved. One staff member, including research assistants, has been selected from each of the various areas of vocational education wherever this has been possible. This has enabled the RCU to have a representative who is a part of every group of vocational educators within the state. It is the feeling of the director and the associate director that this staffing pattern has facilitated much closer relations with the field.

The intensive focus upon one goal, on a statewide level, has also enabled this RCU to involve groups across the state. The statewide activities have provided a spectrum of research activities which may be studied in depth within any given area in the state. It has required only a small amount of encouragement on the part of the RCU staff members to successfully involve other groups in intensive studies of RCU identified issues, which have been studied on a broad scale by the RCU. This has resulted in a high degree of knowledge and commitment on the part of local vocational education personnel.

A measure of the success of the project undertaken by this RCU can be seen in the distribution of the reports of its major project. Over 5,000 copies of the report have been disseminated and requests still occur for copies. In addition, the RCU has developed a unique method of gathering data by using undergraduate students as interviewers in their home location during Christmas vacation. In this way, statewide coverage is easily achieved. Also, the students going out to gather data for the current project are disseminating copies of the report of last year's project.

The mailing list for the newsletter has over 1,600 names on it, which are categorized according to groups. Thus, when there is a group that would be interested in a given bit of information, such as school administrators, the names of all school administrators on the mailing list are easily obtained.

Another major success experienced by this RCU is the increasing demands for the staff to be involved in in-service activities and training sessions. Requests now outstrip the ability of the staff to handle in-service meetings.

The Associate Commissioner of Education in charge of vocational education has positive comments to make about the RCU. There is a wish on the part of the State Department for greater involvement of the RCU in its activities. The Associate Commissioner was lavish in his praise of the activities of the RCU, and the strength of his commitment to the operation of the RCU was backed up by his willingness to appropriate any available funds for use by the RCU.

One of the most stringent limitations which this RCU faces in its operation is availability of funds. The feeling of the staff and the State Department is that the discretionary awards program is definitely a step in the right direction, but the director of this RCU feels that it could be providing a much more adequate program if more funds were available. It seems likely that if adequate funds are to be obtained, they must be obtained from the federal government.

Case Study #6

The primary function served by the RCU in this state has been to act as a coordinating agency for the review, funding, and evaluation of proposals for developmental pilot programs in vocational education at the secondary (eleventh and twelfth grade) level. The overall effect of this thrust has been to place the RCU in a "clearinghouse" role within the structure of the vocational education division of the State Department of Education.

Those interviewed in this state who were either directly or indirectly associated with the RCU through the developmental pilot programs agreed that an important need in vocational education program improvement and expansion had been served by employing the resources and personnel of the RCU in this manner. Conversely, those interviewed who were not directly associated with the operational activities of the RCU, especially officials at the state university, tended to agree that such a role was primarily administrative in nature and was a misuse of the RCU. It is at this juncture of relationships with the RCU--state department in close relationship and university in distant relationship--that the views of success of the RCU in this state begin to part.

Considerable differences in opinions of and attitudes toward the RCU exist in this state, particularly between state department personnel and university personnel. The RCU is located at the State Department of Education, in the same office area as the State Director of Vocational Education. There appeared to be extremely close coordination between the RCU and state vocational directors and their respective staff members.

The RCU Director listed among outstanding features of his RCU its location in the vocational education division of the State Department of

Education; the RCU resource center with its publication (newsletter), microfiche and microfiche reader, and good quantity of printed material available; and the cooperation existing between the RCU and the major universities and state colleges of the state.

Included in the RCU Director's list of concerns for the RCU were: limited office facilities ("an inadequate physical environment"); a need to shift the emphasis of the primary function of the RCU from the pilot project program to one of a broader nature which would meet more of the stated objectives of the RCU ("we have spent a lot of time on these developmental pilot projects; now we must shift gears to have a focus of engendering research"); and a concern for the lack of research personnel at local and university levels to work with RCU staff. He felt that present organization of local vocational education programs was not conducive to cooperative research efforts because of lack of trained research personnel and because "local people have unique, immediate problems that need immediate answers." Research as presently understood (or misunderstood) tends to act too slowly to meet the pressing needs of local educational agencies which may require action type programs.

Although the pilot project programs were vehicles of program expansion and implementation and were apparently successful, the proposal application method utilized was non-technical. The result was a less than formal research process which did not stimulate research as such at the local level. This was criticized by the university vocational division director who cited the "brevity and simplicity" of the application form and stated "they (RCU) should go beyond asking questions such as 'what is innovative about this idea', and 'what could I do without if the project is not approved?'" The RCU Director indicated that future research efforts with local districts would be essentially original and independent of previous involvement in the pilot project program. He indicated his concern for placing emphasis on improving competency of researchers at all levels through workshops and seminars in future operations of the RCU.

Another related concern of the RCU Director was for the lack of an effective evaluation of the pilot programs. He cited the selection of the out-of-state evaluation team experts as "very unsatisfactory", and indicated the evaluation had been too brief, not well coordinated, and generally did not meet the needs of evaluating the success or failure of the pilot programs.

This RCU Director believes that the primary function of the RCU is "to engender research and to disseminate research and information." He said, as far as his RCU was concerned, "We have a long way to go. We have done some work in the area of information collection and dissemination, but we need to do much more." He felt the RCU must "taper off in its involvement in and handling of developmental pilot programs" and "we need to emphasize curriculum development."

The RCU Director stated that he would like to eventually see the RCU in his state located at the state university. While he is happy with the present location of the RCU (at the state department) for the purpose it is now serving, he feels it could play a more important role in occupational education research and development if it were tied in to vocational teacher education. This was also the opinion of the university chairman of vocational teacher education, who felt the RCU should be involved in graduate research training as well as serving its other functions as prescribed by the objectives.

Other concerns voiced by the university chairman of vocational education included his view that "the people at the State Department lack a concept--an identification--of the real issues and problems of vocational education in this state." He was also one who identified the RCU as "a clearinghouse more than anything else," and as noted before, felt the pilot project proposal form left much to be desired from a technical standpoint. Further, he was critical of the pilot project program as a method of improving vocational education in his state. While he agreed that many students had been exposed to vocational education as a result of the pilot programs, he felt the exposure was often too short, that the program had the effect of "buying students," and said "The real question is 'What has the RCU done with the dollars it has received to improve vocational education programs?'" He felt the RCU had "not operationalized its approach"...as far as the pilot programs were concerned, with the result of the entire program being "an open ball game." He stated that he did not feel the RCU was "on a very business-like or firm basis."

When asked to comment on other aspects of operation affecting the RCU, this respondent stated that he felt the staff turnover at the state department level was too great for the RCU to have any effective continuing programs. He said further, "There is no atmosphere of intellectual research or idea generation within the state department of education staff, and the morale, esprit de corps and attitude in the state department is not as good as it might be." As noted earlier, the chairman would prefer to have the RCU located at his university because it would provide an opportunity for graduate student training in research through involvement in RCU projects, and that there is

2

"a better climate for research here at the University--there is more freedom and flexibility in the university setting."

Another interviewee was the State Director of Vocational Education who essentially agreed with the RCU Director. He was very reluctant to spend time with the interviewing team but he did indicate a good knowledge of the role, function and on-going activities of the RCU under his supervision. His preference was to leave the interview in the hands of the RCU director while he acted on matters more important to him. He indicated concern for the type of research generated by the RCU noting a preference for "action research--getting people involved at the classroom level, and dispensing with a lot of the theoretical research that goes on at the university level." He felt that university researchers "tend to get off on their own pet projects," and indicated concern for the relevancy of projects so motivated. A need for additional RCU staff and the funds to employ them to supervise pilot projects, was indicated by the State Director.

Local personnel interviewed generally knew little about the RCU. There was considerable knowledge of the RCU when the team visited a school which had been involved in a pilot project coordinated by the RCU. Vocational supervisors and teaching staff at this school knew of the resource center and one of the seven interviewed used the center. Those who know of the RCU in this state at the local level are those who have been involved in the pilot project program. Otherwise, little has been done to provide information about the existence and services of the RCU in this state. The RCU Director said, "Local people don't know (about the RCU) but they will--new materials will be available soon."

The affect of political pressures upon RCU operations in this state were not obvious. The State Director of Vocational Education takes care of concerns, issues and possible problems of a political nature. He works closely and regularly with other agencies within his state and with Washington, D. C.

This RCU is located in the most densely populated, highly industrialized state of the seven studied. It has been in operation for more than two years, and includes a staff of one director and two researchers, plus the cooperative effort of several other members of the vocational education division staff.

While the scope of operation of the RCU in this state is presently limited to a singular method for improving vocational education within the state, most of those interviewed agreed that the role was one of prime importance for this state and one that had been well fulfilled by the RCU. In this state a decision was made to employ the operational resources provided by the RCU for a specific purpose--to serve as the coordinating agency for the review, funding and evaluation of developmental pilot programs in vocational education. This was seen as an immediate and meaningful treatment of an "illness"--a lack of adequate vocational education opportunities for young people in local public secondary school programs. There is considerable evidence too that a new, more comprehensive role for the RCU is in sight. The RCU Director is committed to expanding operations to encompass a broader spectrum of activities for improving the quantity and quality of occupational education research and development in this state.

Case Study #7

The most outstanding feature of this RCU appears to be its excellent management and operational organization, both of which can be directly attributed to the director of the unit.

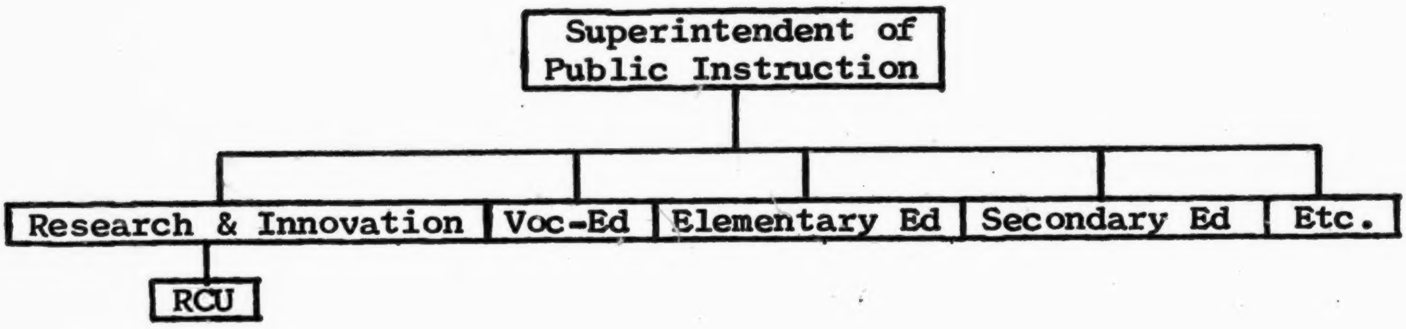
The unit helps to plan, monitor, review, evaluate and coordinate vocational education research and programs in the state. It also has good rapport and works closely with other agencies. Often the RCU staff is "loaned out" to help these agencies conduct research.

The unit personnel do not seem to be hampered by red tape and are free to work at their own discretion. Funds, though limited, are available to the RCU which allows them to work more with the people in the field on applicable research. The RCU staff and office space are limited, and, as a consequence, the effectiveness of the RCU for conducting all the research needed within the state is reduced. Funds are not sufficient to finance all the research projects.

Some of those interviewed felt the RCU was too concerned with conducting curriculum research, and they felt the RCU should limit that operation and emphasize other types of vocational education projects. The RCU appears to be spending too much time on insignificant and immediate research, and is disregarding the long range research problems. In fact, it was evident that the RCU does not have a long range plan for dealing with research activities in the state. It is believed that research activities at the local level would be more effective if such a plan were established.

Other individuals interviewed felt that if the RCU were under direct supervision of the State Director of Vocational Education, it could operate on a higher plane of efficiency, with more research contracted to private agencies, and the RCU staff made available to provide other types of services.

This RCU is within the Division of Research and Innovation under the jurisdiction of the Superintendent of Public Instruction. It is separate from the Department of Vocational Education. The following diagram is provided for clarification:



One member of the staff is assigned to the state university while the remainder are located at the state office.

This RCU has been operating for more than two years in this most sparsely populated of the seven case study states.

Although the RCU is separated from the Vocational Education Department, excellent working relations are maintained on a daily basis. The RCU Director and the State Director of Vocational Education meet frequently to work on mutual problems. In addition, other good interagency relations appear to exist. The staff members of the RCU readily contact outside agencies and willingly work with the agency staffs on their projects.

Most of those interviewed felt that the RCU staff was well qualified for Vocational Education research. The RCU Director felt that although most of the staff was well qualified, the graduate assistants employed in the unit were not. In most cases, the graduate assistants had to be given instruction in research techniques and types of research tools necessary for research.

Research has increased both in quantity and quality since the establishment of the RCU. It cannot, however, be determined what contribution has been made directly by the RCU. Researchers freely come to the RCU for assistance in designing research projects, writing proposals, and compiling final reports. They actively seek their services and request seminars, conferences, and workshops to increase their research ability.

The image of vocational education has improved since the RCU was established, but again it is not known what direct influence the RCU had in improving it. The consensus was that the RCU had played an important part.

The RCU also appears to have an excellent reputation throughout the state. Most of the people interviewed regard the RCU as doing an excellent job and sought their services.

Issues and problems are identified by the RCU in an informal way. It has not been necessary to set up a formal program to accomplish this objective, because the people freely inform the RCU of their local problems. The vocational education specialists (Business Ed., Home Ec., Industrial Ed., T. & I., and Ag. Ed.) also advise the RCU of problem areas.

Information collection and dissemination is at the present time an informal procedure. In the past a formalized program was established which utilized the university personnel as resource people in assisting the local researchers with their problems. In addition, a monthly newsletter was circulated throughout the state providing information on current and relevant Voc-Ed research projects. The program did not work well because communication and cooperation between local people and researchers failed to occur; thus, the program was eliminated. At present, the RCU contacts people on an informal basis and provides them with relevant information from the ERIC Center in Ohio. A new program is now in the planning stage that will again provide a formalized structure for disseminating Voc-Ed research information to a greater number of people in the state.

The RCU will maintain the same overall programs for the future, but they will remain flexible to adjust to current situations as they arise. The Director feels that much has been accomplished with this method.

The political climate in the state is very favorable to vocational education. The governor and the legislature both support vocational education, and have provided funds for the operation of the RCU, new vocational education research, and new vocational education programs.

Overall, the RCU appears to be doing an efficient job, and the RCU Director is given a lot of credit for the smooth efficient operation of the unit. The Unit Director is satisfied with the location of the RCU, but the State Vocational Education Director would prefer it to be located under his direct supervision. The unit appears to be primarily involved in vocational education research. They are concerned about monitoring, reviewing, and evaluating vocational education curriculums. The unit has attempted to contact people in the field and set up communication with them. They appear to be well known throughout the state. The people contacted were satisfied with the function of the RCU and were actively seeking their services.

CHAPTER IV

CONCLUSIONS AND RECOMMENDATIONS

Introduction

It is difficult to generalize about research coordinating units for no two are alike. Each generalization could be contradicted by its opposite. Yet a general statement encompassing perceptions of the evaluation team seems important as a basis for the more specific statements of conclusions which follow.

RCU's are unlike for numerous reasons. Chief among these are individual perceptions of goals, resulting in highly individualized programs from state to state, and individual and unequal strengths and weaknesses of RCU's. Evaluation then, is at best difficult because of the diverse ways in which objectives, directives and individual proposals were stated. This evaluation is descriptive and subjective, and hopefully systematic and scholarly. The former, at least, has prescribed the limitations of this study. The latter will be evaluated as individually as have RCU's themselves been established and operated.

Overall, the RCU represented the classical dilemma of the sociological marginal man--caught between diverse if not conflicting role expectations and praised or criticized by persons holding either perspective. At least three dichotomies exist relative to this dilemma:

1) The dilemma between research and development. Most RCU's did not have a clear set of expectations relative to whether or not they should be engaged in research and development, either or both. Some claimed to be involved in research, but took no responsibility for development, which was considered a responsibility of some other agency.

Some RCU personnel disavowed a responsibility for research, claiming only developmental functions. In either case, RCU official positions were not always congruent with perspectives of their roles held by the clientele groups they served.

2) _University-state department of education dilemmas_. Although only slight differences were found due to location of the RCU, expectations differed for the two locations and clientele also differed as to where they would feel the RCU could be most appropriately situated. University adherents argued that sophisticated research scholarship, and the training of vocational education researchers could best be accomplished through its stewardship, while the state department advocates held that this agency could best relate RCU's to the field and could accomplish the developmental, information-disseminating, and coordinating functions most appropriately.

3) _The dilemma of role assumption_. The RCU was generally caught between the horns of different perspectives regarding the future organization of the field of vocational education. Should it work within the present service fields? Or should it stress the over-all vocational education development and disregard the traditional fragmentation? The dilemma was expressed in terms of those who felt RCU's should be supportive of the existing structure within the field and those who held that it should provide leadership and attempt to move the field toward a more unitary conception. The latter group felt that the RCU should engage in activities which would enhance the development of a relevant, career-oriented, future-looking curriculum which would meet the needs of the eighty percent of the students who do not benefit entirely from the traditional curriculum. The former group felt that RCU's were organized to serve the existing structure and its needs, not to impose

new directions upon the field.

Collectively, these sets of ultimately opposing expectations would indicate that the RCU director who would survive would certainly have to possess a high degree of tolerance for ambiguity.

One of the difficulties of the RCU program arose from its being imposed upon the field rather than becoming an agency which the field conceived as needed and desirable. Because of this, the field of occupational education was not involved directly in the management and goal establishment of RCU's. The personnel on advisory committees were prestigeous individuals frequently not directly involved in field operation. These factors led almost inevitably to a lack of commitment to the program, apathy towards its direction, and indifference towards its existence. This major weakness is reflected in the inadequate use of advisory committees by RCU's generally, although provision for such advisory committees is contained in many of the proposals for the establishment of individual RCU's.

The second major difficulty of RCU's has resided with the leadership. RCU directors have been unprepared to assume the two-headed role of research leadership, on the one hand, and occupational education leadership, on the other. Qualified personnel, both for directors' positions and for other staff positions, have been scarce. Consequently, positions have frequently been filled by people with qualifications which are less than desirable. The problems which result from this situation are obvious.

As a result of the two problems discussed, the RCU has failed in one of its primary missions. It has not established to the extent desirable, relations with local occupational education programs. Many responding RCU personnel were aware of and deeply concerned about this problem. This is a major failing of the RCU program, and a failure which is essential to attack if the RCU program is to continue with any success. Comments by RCU personnel and state directors indicate that good plans are currently under way to rectify this failure.

The major successes of the RCU program cluster around two RCU objectives which are probably the most important objectives for the RCU program. Apparently during the period of operation of the overall RCU concept, there was a major focus given to the collection, categorization and development of systematic retrieval systems for occupational education research and development information. Comments throughout the data indicate that RCU's have worked extensively and, at least, with moderate success in this area. However, there is little evidence of the significant use of these materials outside of the RCU staffs themselves and among graduate students at the universities. The extensive compilation of these occupational education materials can have an impact upon the field of vocational education, the strength of which is yet to be measured.

The second major achievement of the RCU program is the focusing of attention upon research in the field of occupational education. Comments indicate a fairly strong feeling among at least the occupational education personnel responding in our study that occupational education suffered from an image which placed it in an unfavorable position relative to other areas of education. The RCU program, by stimulating and focusing attention upon occupational education research, has undoubtedly influenced the image of occupational education. There is more information and more attention focused upon occupational education today than has previously been true. The favorable changing of the image of occupational education has already had some impact upon the field, and the continuing impact is likely to be extensive.

The following conclusions and recommendations are based upon an analysis of extensive written questionnaire responses and upon seven case studies. The conclusions represent a synthesis of the total experience of the research team and of the priority concerns of state directors of vocational education, RCU directors, and others directly involved in the operation of RCU's. The recommendations, based on the conclusions, are directed at affecting specific changes in present operational procedures and at bringing about a better awareness of the role and function of the Research Coordinating Unit. A suggested model for evaluation of programs is included as an outgrowth of this study. Both conclusions and recommendations are presented without reference to rank or importance. All seem worthy of consideration.

Conclusions

A virtually unlimited list of characteristics of RCU's could be developed. The important characteristics appear to collect in seven areas of concern. These include relations with state departments of education, relationships to universities, RCU relations to local educational agencies, perceptions of the mission of the RCU, staff organization and resources, political climate, and educational and research climate. The following specific conclusions give primary attention to these areas of concern and to additional related aspects of RCU organization and function:

1) There is an apparent deficiency of communications among RCU's, and between RCU's and the U. S. Office of Education. Many difficulties mentioned by respondents would cease to exist if more adequate channels

of communication between these agencies were established.

2) Many RCU's have curtailed operations because of funding limitations or uncertainties. A widespread result has been research generation without program development and implementation. In addition, efficiency and effectiveness of operation of many RCU's has been curtailed because of uncertainty of the exact amount of funds which would be available during a given funding period.

One result of lack of funds is limited staff. Many RCU directors feel that they are forced to operate at an efficiency level below that which they desire and can achieve, and that only cursory attention can be given priority concerns.

3) Information collection and dissemination as a primary function of RCU's has suffered from inadequate knowledge of sources of information, communication with other RCU's and thorough understanding of ERIC services and resources.

4) Time lags between appropriation and obligation of funds of up to seven months have seriously curtailed continuity of planned RCU programs and activities.

5) Vocational educators at the local level, particularly, do not identify with the RCU as a research agency in many states. This situation indicates a lack of effort to communicate with local vocational education people as a source through which issues and problems in vocational education could be identified and developmental programs could be tested. The structure and location of the RCU could well be a barrier to effective coordination and communication with local educational agencies.

6) Unavailability of trained, competent research personnel has seriously limited the staffing and operation of many RCU's.

7) Specific location of the RCU, whether at university, state department of education, or other location, has not affected the specific contribution of RCU's to the vocational education research effort to a discernible degree. This does not overlook the fact that in some states serious problems of communication between various vocational education agencies exist because of location. However, RCU location in and of itself does not appear to have been a specifically limiting factor.

8) Many RCU's appear confused as to their role in initiating research, especially with respect to proposal writing by RCU staff members. This can be attributed in part to differences in interpretation of certain U.S.O.E. objectives for RCU's.

9) Technical ability to evaluate adequately the quality and usability of occupational education information and materials is lacking in several RCU's. This situation limits accessibility and relevancy of materials and causes considerable duplication of effort in processing.

10) Usability of USOE required quarterly reports from RCU's is questionnable. Some directors felt they constituted busy work and few found they were of any value.

11) Issues and problems in vocational education have seldom been consistently identified by RCU's as a framework for operation. Moreover, the identification of issues and problems has not often been one of the objectives of many RCU's.

12) RCU advisory committees have not been organized in all states having RCU's. Where they do exist, the extent of involvement in RCU program planning has been limited.

13) Long range operational and program planning has not been a feature of many RCU's.

14) While a tendency persists in many states to place vocational education in a place of secondary importance to other areas of education, there is some evidence that RCU's are contributing to the improvement of the image and role of vocational education.

15) Objectives not listed for RCU's by the U. S. Office of Education were chosen as first, second, and third priorities for RCU's by both RCU directors and state directors of vocational education. It appears that to a limited extent RCU's are attempting to achieve goals not initially established for them; at least some people important to RCU functioning feel that RCU's should be moving in directions not initially intended by the U.S.O.E.

Recommendations

1) The federal funding period of the U. S. Office of Education should be adjusted to coincide with the RCU fiscal operating period.

2) The U.S.O.E., a qualified Task Force, or an RCU should concentrate upon implementing the following sub-recommendations:

a) Funding should be equitably distributed among the states on the basis of a set of criteria which focuses upon input/output relationships pertinent to RCU operations.

b) A usable technique for reviewing and evaluating research materials and developing a relevant and comprehensive system for organizing and filing library resource materials should be developed.

c) Adequate and meaningful self-evaluation instruments for RCU's should be developed.

d) Criteria for long-range planning in occupational education research and development should be established to assist RCU's in program planning.

e) The role of the Ohio ERIC Center for Vocational and Technical Information as a key communications link in the national RCU network needs to be clarified and amplified.

f) The role of the RCU as an initiator of research ("doing" research) must be clarified. Such clarification should be differentiated from "stimulating" research.

g) An up-to-date list of heads of occupational education programs in the public schools of every state should be developed.

3) Funds should be made available to provide for an RCU staff which is adequate to accomplish the objectives established by the RCU.

4) When funds for staffing an RCU are deemed inadequate to meet the objectives, the basis of operation of the unit should be reduced to a manageable economic basis.

5) The U. S. Office of Education and the respective state departments of education must make clear to the RCU in each state specifically and exactly what funds are available for RCU operation during the coming funding period.

6) Until more meaningful procedures for self evaluation of each RCU are developed, RCU personnel should serve as members of evaluation teams for the evaluation of RCU programs in contiguous states.

7) The RCU in each state should seek to establish its identity as a separate but involved agency in vocational education, especially when the RCU is located in the state department of education.

8) Regardless of location of the RCU, efforts should be made to improve communication, coordination and cooperation whenever and wherever possible in vocational education research and development among state departments, universities, and local educational agencies.

9) Regional meetings of RCU directors should be held regularly (at least quarterly) with the purpose of improving communications and relationships between and among research coordinating units. At the same time, efforts should be directed at improving communications between RCU's and the U. S. Office of Education. This should be a helping and coordinating relationship.

10) Annual or semi-annual reports to the U. S. Office of Education should replace the present quarterly reporting system.

11) Exemplary RCU operations should be identified and utilized as models for the development of future directions for RCU's concerned with reorganization, broadening the base of their operations, or refocusing their attention on new or previously unidentified areas of concern.

12) RCU's should give attention to employing personnel with public relations or editorial experience for developing meaningful public information and publications materials.

13) New and improved channels of dissemination of information and materials need to be developed to replace the simple "mailing list" approach now being used almost exclusively as the only method of disseminating research information in occupational education.

14) RCU's need to give greater attention to identifying issues, problems, and needs in vocational education research at a local level including provision for making available research information, microfiche readers, hard copy printers and other attendant facilities and equipment which will improve the usability of materials presently stored in inaccessible and unused resource libraries.

15) RCU's need to become more deeply involved in vocational teacher education at state universities and colleges regardless of their present

location.

16) RCU's need to develop better working relationships with business and industry as a specific method for involving these areas of community life in vocational education through research and development.

17) RCU's should become more involved with local school districts.

18) Policy regarding involvement and support of graduate assistants in RCU operations should be clarified.

19) Many RCU's could make better use of advisory committees. In-service seminars for RCU directors would help develop the ability of RCU directors to work effectively with advisory committees.

20) Federally defined objectives for RCU programs should be carefully assessed for possible additions.

21) Objectives for RCU programs should be stated in behavioral terms.

22) RCU directors should attempt to establish working relations with regional education laboratories.

A Fundamental Evaluation Problem

The intent of this section is to present a discussion of a fundamental problem that developed while conducting this project; to present a point of view that is essential in an evaluation project; to discuss various factors which could be considered in future evaluation projects; and to suggest a model for evaluation of similar federal programs.

The orginal proposal for this evaluation project represented an attempt to develop an evaluation which was largely statistical in nature. Because of the manner in which the federally defined objectives for RCU's are stated, it was impractical to handle this project statistically. In any evaluation, there are no absolute criteria. Evaluations are ultimately opinions; the opinion may be held by an individual or it may be widely shared by a large group. It is the job of an evaluator to present his findings in such a way that the group accepting those findings will be as large as possible. But unless an objective is a heads-tails type, that is, one which has either occurred or not occurred, it will be impossible to state statistically the extent to which that objective has been achieved. This is not to say that numerical data should not be included in an evaluation project of this type. Numerical comparisons and quantitative analyses should be some of the more valuable kinds of information which come out of evaluation projects. But the extent of achievement of a given objective which is stated as were the RCU objectives in this study cannot be measured quantitatively.

To achieve the objectives of this study, an examination of the federally defined objectives for RCU's is essential. One of these objectives is stated this way in the proposal: "To stimulate and encourage occupational education research and development activities in state departments, local school districts, colleges and universities, and non-profit organizations."

In his book Preparing Instructional Objectives, Robert F. Mager states the following characteristics of an instructional objective.

> 1. An instructional objective describes an intended outcome, rather than a description or summary of content.
>
> 2. One characteristic of a usually stated objective is that it is stated in behavioral, or performance, terms that describe what the learner will be doing when demonstrating his achievement of the objective.
>
> 3. The statement of objectives for an entire program of instruction will consist of several specific statements.

4. The objective that is most usefully stated is one that best communicates the instructional intent of the person selecting the objective.[1]

RCU objectives are similar in nature to instructional objectives and the criteria listed by Mager apply equally to them. As long as federally stated objectives (such as the one quoted above) are in general terms, evaluation will remain essentially impossible. Until objectives are stated in terms which are measureable, no quantitative statement of the extent of achievement of those objectives is possible.

For example, consider the above objective, looking specifically at the segment of that objective "To stimulate and encourage occupational education research." When has this been accomplished? Is this objective met when an RCU can point to its role in stimulating one major research project, ten such projects, or one hundred such projects? The extent to which this objective has been accomplished is impossible to determine until the expected behavioral outcome has been clearly established.

In a given state, this same objective for the RCU might be stated:

> "To serve as a consultant on at least ten published vocational education research projects which involve more than one public school district."

At any time during the funding period for this RCU, it will be possible to determine the extent to which the objective has been achieved.

While considerable time will have to be spent to state objectives in this form, the positive effect upon evaluation will be great. The research team strongly recommends to the U.S.O.E. that the objectives of future proposals be stated in terms of behavioral objectives which can be measured.

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[1] Mager, Robert F., Preparing Instructional Objectives (Fearon Publishers, Palo Alto, California) 1962, page 24.

An Evaluation Model

As presented in the diagrammatic sketch on the next page, the evaluation team feels that there is a definite procedure which an RCU is likely to follow in attempting an evaluation of its program. The process begins with a statement of the objectives of the RCU in behavioral terms.[1] Once objectives have been stated in behavioral terms, an advisory panel of research experts in vocational education may be utilized to develop questionnaires. Questionnaires should be submitted to all relevant personnel. This would include the RCU staff, the state director of vocational education, heads of appropriate agencies, and a sample of people whom the RCU should be serving. A sample of each of these groups should be interviewed. An optional part of the evaluation process is the evaluation of unit publications.[2]

The evaluation of a given RCU program may well be conducted by RCU personnel from an adjoining state. This would be stimulating both to the RCU doing the evaluation and the personnel being evaluated.

The evaluation team suggests that the evaluation of a given program should not be tied to funding. Instead, funding should be on the basis of an established set of criteria and the purpose of the evaluation should be improvement of a given program rather than a comparative analysis of its effectiveness.

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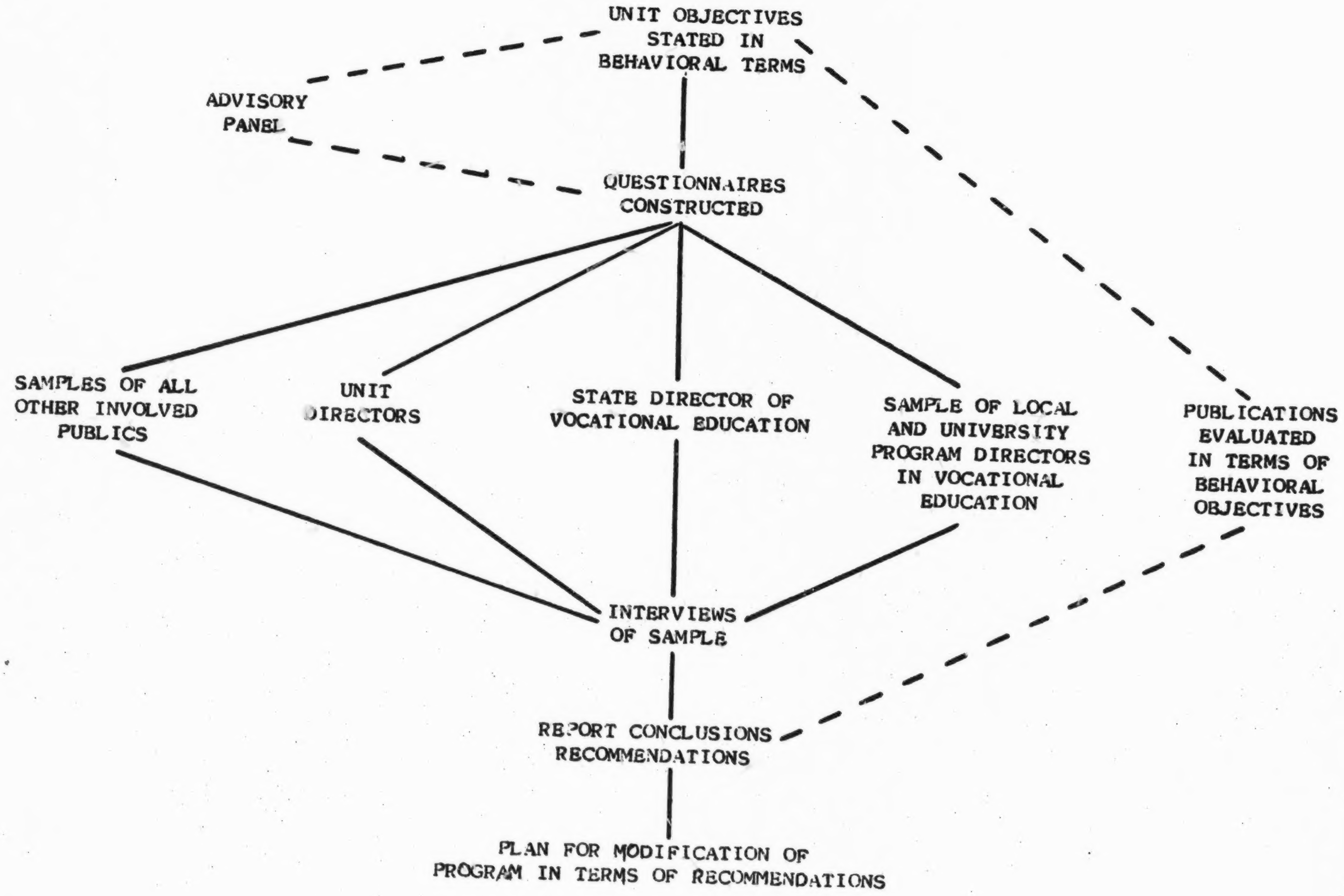
1. Mager, Robert F., Preparing Instructional Objectives, (Fearon Publishers, Palo Alto, California) 1962.

2. If an RCU establishes its objectives in behavioral terms, it may be possible to modify the publications evaluation instrument (see Appendix G) sufficiently to determine the extent to which a given publication contributes toward meeting a given objective.


UNIT OBJECTIVES STATED IN BEHAVIORAL TERMS
ADVISORY PANEL
QUESTIONNAIRES CONSTRUCTED
SAMPLES OF ALL OTHER INVOLVED PUBLICS
UNIT DIRECTORS
STATE DIRECTOR OF VOCATIONAL EDUCATION
SAMPLE OF LOCAL AND UNIVERSITY PROGRAM DIRECTORS IN VOCATIONAL EDUCATION
PUBLICATIONS EVALUATED IN TERMS OF BEHAVIORAL OBJECTIVES
INTERVIEWS OF SAMPLE
REPORT CONCLUSIONS RECOMMENDATIONS
PLAN FOR MODIFICATION OF PROGRAM IN TERMS OF RECOMMENDATIONS

The Future

As a temporary structure designed to eliminate some of the problems of the field, the RCU can play a vital role in the future of occupational education. The questions implied in the previous recommendations must be answered. Who can give it specific direction? To whom will it be responsible? Of what agency should it be a part? What types of personnel are most desirable to serve its purposes? To what extent should it have stable funding? How specifically should subjectives be spelled out? How can communication among RCU's be improved? How can it be assured that the RCU serves the needs of occupational education within the state rather than the organizational needs of its sponsoring institution? If these questions can be adequately answered, then the RCU will likely play a powerful role in the future of occupational education.

APPENDIX A

RCU Director Questionnaire

Following is a copy of the survey instrument used to collect data from directors of research coordinating units.

APPENDIX A

RCU Director

I. A. Included below are 15 objectives toward which RCU's might be working. In the boxes at the left, marked Priority Rank, please place the numbers of up to six statements which most nearly represent the objectives of your Research Coordinating Unit. Place the number of the most important objective in box 1, the second most important objective in box 2, the third most important objective in box 3, and so on to box 6. In making this ranking, please think in terms of the importance of each objective for your RCU rather than for RCU's in general.

B. In the boxes labeled Percent Time, indicate for each objective the approximate percent of staff time (including your own) spent working on each objective.

	PRIORITY RANK	PERCENT TIME
1.	☐	☐
2.	☐	☐
3.	☐	☐
4.	☐	☐
5.	☐	☐
6.	☐	☐

1. To disseminate information on progress and application of occupational research.

2. To survey available data on employment opportunities, occupational trends and future job projections for use in planning vocational programs, curricula, facilities, teacher training, recruitment and placement in the state.

3. To create change in the administration of local vocational education programs.

4. To coordinate occupational education research activities conducted within the state with those being conducted within the state with those being conducted outside the state.

5. To coordinate occupational education research activities conducted by state departments, local school districts, colleges and universities and nonprofit organizations.

6. To act as a clearing house for all federal financial and other statistical reports relating to expenditure (accounting) of federal funds and program enrollments, etc.

7. To identify and maintain an inventory of available occupational research and development resources in the state.

8. To stimulate activities, including pre-service and in-service training which would result in increased interest and improved competence in research.

9. To serve as a statistical research reporting service for the State Department of Education.

10. To review and monitor occupational research and development projects.

11. To stimulate and encourage occupational education research and development activities in state departments, local school districts, colleges and universities, and nonprofit organizations.

12. To conduct occupational research and development projects.

13. To initiate research projects through involvement of RCU staff in proposal-writing.

14. To determine occupational research needed to resolve the major vocational education issues and problems.

15. To identify issues and problems relating to the nature and place of vocational education in the state school system.

16. Other (specify) (Add additional pages if necessary)

C. In your listing above of the percent of staff time spent on various objectives does the total time spent total 100 percent of staff time expended? ___Yes ___No If no, please explain briefly where the remaining time was expended.

D. The following questions relate directly to the six objectives you have placed in a priority rank order on the preceding page. Please answer the a), b), c), and d) questions relating to the ranked objective in each case. It may be helpful to you to copy the proper ranked objective, on the lines provided, for easy reference in answering the lettered questions. If additional pages are necessary for complete responses, please be careful to identify them by appropriate letters and numbers and attach to the questionnaire.

1. Priority Rank Objective #1 from page 1

____

a) Why did you choose this objective as Priority Rank #1?

b) What initial plans were made to achieve this objective?

c) In what specific activities did your RCU engage while attempting to achieve this objective, and what were the outcomes or achievements which resulted? Please be specific, list:

1) Name of activity

2) Number of people involved

3) Positions of those involved

4) What kind and how much data collected

5) How data utilized

6) What kind and how many publications mailed, etc.

d) In a short statement indicate your own assessment of the extent to which this objective has been achieved.

2. Priority Rank Objective #2 from page 1

____

a) Why was this objective chosen as one of the major objectives of your RCU?

b) What initial plans were made to achieve this objective?

c) In what specific activities did your RCU engage while attempting to achieve this objective, and what were the outcomes or achievements which resulted? Please be specific, list:

1) Name of activity

2) Number of people involved

3) Positions of those involved

4) What kind and how much data collected

5) How data utilized

6) What kind and how many publications mailed, etc.

d) In a short statement indicate your own assessment of the extent to which this objective has been achieved.

3. Priority Rank Objective #3 from page 1

____

a) Why was this objective chosen as one of the major objectives of your RCU?

b) What initial plans were made to achieve this objective?

c) In what specific activities did your RCU engage while attempting to achieve this objective, and what were the outcomes or achievements which resulted? Please be specific, list:

1) Name of activity

2) Number of people involved

3) Positions of those involved

4) What kind and how much data collected

5) How data utilized

6) What kind and how many publications mailed, etc.

d) In a short statement indicate your own assessment of the extent to which this objective has been achieved.

4. Priority Rank Objective #4 from page 1

____

a) Why was this objective chosen as one of the major objectives of your RCU?

b) What initial plans were made to achieve this objective?

c) In what specific activities did your RCU engage while attempting to achieve this objective, and what were the outcomes or achievements which resulted? Please be specific, list:

1) Name of activity

2) Number of people involved

3) Positions of those involved

4) What kind and how much data collected

5) How data utilized

6) What kind and how many publications mailed, etc.

d) In a short statement indicate your own assessment of the extent to which this objective has been achieved.

5. Priority Rank Objective #5 from page 1

____

a) Why was this objective chosen as one of the major objectives of your RCU?

b) What initial plans were made to achieve this objective?

c) In what specific activities did your RCU engage while attempting to achieve this objective, and what were the outcomes or achievements which resulted? Please be specific, list:

1) Name of activity

2) Number of people involved

3) Positions of those involved

4) What kind and how much data collected

5) How data utilized

6) What kind and how many publications mailed, etc.

d) In a short statement indicate your own assessment of the extent to which this objective has been achieved.

6. Priority Rank Objective #6 from page 1

____

a) Why was this objective chosen as one of the major objectives of your RCU?

b) What initial plans were made to achieve this objective?

c) In what specific activities did your RCU engage while attempting to achieve this objective, and what were the outcomes or achievements which resulted? Please be specific, list:

1) Name of activity

2) Number of people involved

3) Positions of those involved

4) What kind and how much data collected

5) How data utilized

6) What kind and how many publications mailed, etc.

d) In a short statement indicate your own assessment of the extent to which this objective has been achieved.

E. In a short statement below, indicate factors which have been an impediment to the achievement of objectives established for your RCU.

F. Please write a succinct statement of the strengths of your RCU.

G. Please write a succinct statement of the weaknesses of your RCU.

II. Organizational Information

1) Please attach a list of all present professional staff members from your RCU.

2) For each staff member, please attach the following information:

   a) Title (as related to RCU and to sponsoring agency)

   b) Degrees held

   c) University where each degree earned

   d) General experience background

   e) Vocational education experience

3) Attach a job description for your present position as director of the RCU.

4) Attach a diagram or pattern reflecting the administrative structure of the RCU beginning with the highest level (individual or board) and extending at least through the RCU consultant, (professional staff) level. Show relationship of advisory councils or boards, if any.

5) To whom are you directly responsible if this is not clear on the above administrative diagram?

   a) Name______________________

   b) Title______________________

   c) Nature of your relationship______________________________

   ____

6) Briefly describe the process utilized for establishing the administrative structure of your RCU. If changes in organizational pattern have occurred, please mention them. Give reasons for and results of these changes.

III. Other

1) Please list the topics, up to five in number, of the best projects in which your RCU has participated or for which it is responsible.

   a) From a total of how many projects were the above selected?

   b) Why did you decide these projects were the best?

2) a) Does your RCU provide services to colleges and universities in your area? ___Yes ___No If yes, mention the kinds of services performed, how they are initiated and how effective you regard these services.

   b) Does your RCU provide services to the State Department of Education? ___Yes ___No If yes, mention the kinds of services performed, how they are initiated and how effective you regard these services.

   c) Does your RCU provide services to other state agencies? ___Yes ___No If yes, mention the names of the agencies, the kinds of services performed, how they are initiated, and how effective you regard these services.

   d) Is your RCU involved with the ERIC Center at Ohio State University? ___Yes ___No If yes, please explain the nature of the involvement.

   e) Is your RCU involved with the Regional Education Laboratory in your area? ___Yes ___No If yes, please explain the nature of the involvement.

   f) Is your RCU involved with the Regional Office of the U. S. Office of Education? ___Yes ___No If yes, please explain the nature of the involvement.

   g) Does your RCU provide services to local school districts within your state? ___Yes ___No If yes, give instances of specific services provided.

IV. Funding

1. Please indicate the total RCU budget (from the starting date of the unit) for each funding period. Include all funds from each source indicated.

	FUNDING PERIOD			
Dates:	From______ To______	From______ To______	From______ To______	From______ To______
Federal	______	______	______	______
State	______	______	______	______

Local __________ __________ __________ __________

Other(Specify)__________ __________ __________ __________

2. Please indicate the amount of 4(a) and 4(c) funds which have been obtained by individuals, groups, and agencies besides your RCU as a direct result of efforts by your RCU staff.

Dates: From______ From______ From______ From______
To______ To______ To______ To______

4(a) Amount __________ __________ __________ __________

4(c) Amount __________ __________ __________ __________

3. Please indicate the amount of funds from public or private foundations which have been obtained by individuals, groups, and agencies besides your RCU as a direct result of efforts by your RCU staff.

Dates: From______ From______ From______ From______
To______ To______ To______ To______

Amount __________ __________ __________ __________

4. Please indicate the amount of funds from small grants through the Regional Office which have been obtained by individuals, groups, and agencies besides your RCU as a direct result of efforts of your RCU staff.

Dates: From______ From______ From______ From______
To______ To______ To______ To______

Amount __________ __________ __________ __________

5. (a) Please give an indication of time spent on developing proposals, if any, both for your RCU directly and for other agencies with which you have worked.

   (b) If any proposals have been written, give a brief indication of the degree of success experienced in funding them.

6. (a) Rate the funds received from the various agencies noted on the previous page relative to ease of securing, relative impact of projects so funded, and accountability demands of the funding agency. (Please check each scale in the appropriate place.)

4(a) Funds:

Easily Secured /--/--/--/--/--/ Hard to Secure
High Impact /--/--/--/--/--/ Little Impact
No Accountability Required /--/--/--/--/--/ Extremely Detailed Accountability

4(c) Funds:

Easily Secured /--/--/--/--/--/ Hard to Secure
High Impact /--/--/--/--/--/ Little Impact
No Accountability Required /--/--/--/--/--/ Extremely Detailed Accountability

Foundations:

Easily Secured /--/--/--/--/--/ Hard to Secure
High Impact /--/--/--/--/--/ Little Impact
No Accountability Required /--/--/--/--/--/ Extremely Detailed Accountability

Small Grants:

Easily Secured /--/--/--/--/--/ Hard to Secure
High Impact /--/--/--/--/--/ Little Impact
No Accountability Required /--/--/--/--/--/ Extremely Detailed Accountability

Other (Identify):

Easily Secured /--/--/--/--/--/ Hard to Secure
High Impact /--/--/--/--/--/ Little Impact
No Accountability Required /--/--/--/--/--/ Extremely Detailed Accountability

(b) Comments

V. Problems in Vocational Education

1. What are the significant problems in Vocational Education in your state as your RCU identified them? (Place an asterick by the most important problem)

2. Specifically, how will your RCU be involved in solving these problems?

VI. If any evaluations or self-evaluations have been conducted for your RCU, please attach a copy, if one is available. (These reports will remain confidential.)

VII. (Optional)

If you would like to comment on your beliefs about the future role of the RCU in vocational education, problems you have faced administering your RCU, other areas not covered in this questionnaire, the questionnaire itself or any other related topics which will help us understand the operation of RCU's please feel free to do so. These comments will remain confidential if you so desire.

APPENDIX B

RCU Director Questionnaire Data

The following information represents a collection of the data collected from the questionnaires completed by RCU directors. Section B-1 includes the selection and priority ranking of six objectives, each with pertinent comments supporting the selection. Section B-2 provides information drawn from free response questions covering several categories related to RCU operation. Reference to the copy of the questionnaire shown in Appendix A will be helpful in aligning this information with various sections of the questionnaire.

B-1

RANKED OBJECTIVES

RCU Objective Priority Rank #1

"#11 To stimulate and encourage occupational education research and development activities in state departments, local school districts, colleges and universities, and nonprofit organizations." (12 cases)

This was seen as a major need, and as the basic reason why the RCU's were funded. Activities typically consisted of in-service meetings with administrative and vocational education personnel. Most RCU's also stated that they published a regular newsletter to disseminate information. Several felt they were achieving results but could not qualitatively measure these results.

"#14 To determine occupational research needed to resolve the major vocational education issues and problems." (6 cases)

This group believed that the occupational needs of their particular states had never previously been properly identified. They saw the RCU as a disinterested agency that could cut across occupational and educational agencies with benefit to all.

Activities typically consisted of surveys and brainstorming sessions with vocational education leaders and community college vocational education personnel. Surveys and other sessions appear to be utilizing only educational personnel rather than a larger community.

"#1 To disseminate information on progress and application of occupational research." (6 cases)

RCU's in this group felt that there was little hope of immediate research in their state; therefore, the RCU's function was to make available research from other sources. Activities used to accomplish this included distribution of newsletters, and conducting in-service meetings with vocational education personnel in schools, state departments, and colleges.

Of special interest: One state in the southeast has organized a clearinghouse with eight nearby states for ERIC materials.

"#2 To survey available data on employment opportunities, occupational trends and future job projections for use in planning vocational programs, curricula, facilities, teacher training, recruitment and placement in the state." (3 cases)

RCU's which selected this as their first objective saw it as a means of increasing financial aid to vocational education programs in their states by using survey results in influencing the legislature and local bond elections.

Activities included surveys, consultations, and contact with personnel of state employment agencies, industry, public schools, and state departments of education.

"#5 To coordinate occupational education research activities conducted by state departments, local school districts, colleges and universities, and nonprofit organizations." (5 cases)

The RCU's that saw this as their first objective conducted a series of seminars among vocational educators, establishing a monitoring system for coordination efforts.

Of special interest: One state divided the state into eighteeen districts with a person assigned in each district to conduct research and planning and bring research communication lines to the local operational level. The universities also cleared research in vocational education with the RCU.

"#12 To conduct occupational research and development projects." (2 cases)

One state used a newsletter to disseminate research information, but gave no indication of projects completed or currently underway. The other state director had an extensive background in his states' civil service agency and conducted numerous studies in lumber and agriculture as these are basic occupations in that state.

"#7 To identify and maintain an inventory of available occupational research and development resources in the state." (1 case)

This RCU is part of the vocational education division of the State Department and was allocated this function as its primary job. After a conference involving approximately 100 teachers, supervisors, and representatives from business and industry, the RCU formulated and published a model. No data was collected or analyzed in the writing of this plan.

"#9 To serve as a statistical research reporting service for the State Department of Education." (1 case)

This state is heavily industrialized and there is a need for statistical information in the state department of vocational education. The RCU did feasibility studies to aid the establishment of Voc-Tech schools in four areas of the state, and expanded two existing Voc-Tech schools. There were 6,780 high school respondents, 1,992 out-of-school youth and adults, 314 firm manager or employers, 9 parish school superintendents, for a total of 9,099 people.

"#6 To act as a clearinghouse for all federal financial and other statistical reports relating to expenditure (accounting) of federal funds and program enrollments, etc." (1 case)

This RCU held conferences with school personnel to examine needs for data. It established a data processing unit and attempted to standardize terminology, forms, etc. to provide more rigid interpretation of data by consumers. Data collection was very extensive. This collection of data appears to be an excellent job, especially the attempts to reduce the material to readily readable form for the average teacher. Possibly the fact that an ERIC Center is located in this state influenced the choice of this objective.

"#8 To stimulate activities, including pre-service and in-service training which would result in increased interest and improved competence in research." (1 case)

The RCU complains that lack of funds affected research and development activities. They also acted as technical consultants. They were involved in 100 studies in occupational education over a period of eighteen months, and established good liaison with the state department, the junior college board, and the regional laboratory in coordinating efforts.

RCU Objective Priority Rank #2

"#11 To stimulate and encourage occupational education research and development activities in state departments, local school districts, colleges and universities, and nonprofit organizations." (9 cases)

Most of the RCU's choosing this objective as number two priority cited the lack of previous research in vocational education and widespread interest in improving vocational education in their state. Typical activities included seminars, surveys of occupational and manpower needs, close work with colleges, universities, and advisory boards. Newsletters and brochures were used to acquaint vocational educators with the RCU and its functions. Most RCU's complained of lack of funds for research.

Of special interest: In one state the RCU developed and published a guide for submitting proposals to the RCU.

"#12 To conduct occupational research and development projects." (3 cases)

RCU's selecting this objective as second priority all keenly felt the lack of vocational research in their state and felt this must be a major objective. Typical projects were: (1) compilation of base line data on occupational education programs in the state, (2) a manpower survey of 600 unemployed household heads, (3) survey of employment opportunities in non farm occupations (21 counties, 297 businesses), (4) an evaluation system in occupational education in the high schools, (5) educational and aspirational assessment of high school seniors, (6) a state wide storage and data retrieval system, (7) follow-up studies of vocational education students, (8) analysis of Voc-Ed costs, (9) a pre-technical program for five voc-tech schools, (10) student personnel program in voc-tech schools, (11) a community evaluation model, (12) "Tech Days" program in state schools, (13) self evaluation study for voc-tech schools.

"#13 To initiate research projects through involvement of RCU staff in proposal writing." (4 cases)

The RCU's selecting this as their second priority found a deplorable lack of fundamental knowledge about research in their states. Most vocational educators had no idea of how to write a proposal or organize a research project.

One reported that research was done on the academic or specialist level--the local high schools being too tied up with politics and rigid administrative requirements for successful research.

All were disappointed at the lack of response and effort directed toward research by vocational educators.

"#1 To disseminate information on progress and application of occupational research." (7 cases)

All of the group selecting this objective established libraries of microfiche from ERIC with readers and printers for producing "hard copy", etc. Most stressed they had not merely a library, but also provided extensive consultative services. One RCU stated it distributed approximately 3,000 pieces of literature on a retrieval system for the filing of vocational education literature in the State Department of Education available throughout the state. Complete lists of administrators, counselors, vocational education coordinators, teachers, etc. were compiled on addressograph mailing plates, for mass mailings. Another RCU employed a full time research director to coordinate dissemination of research materials. Another concentrated on statistical studies of employment and manpower needs.

"#3 To create change in the administration of local vocational education programs." (3 cases)

The RCU's that picked this objective as their second priority felt strongly that vocational education was relegated to a place of minor importance in their state's schools. They felt programs had been static since the Smith Hughes Act.

Specific proposals were: (1) the Voc-Ed Director should have an office and staff equal to high school principals; (2) establish Voc-Ed centers separate from high school; (3) establish a statewide learning resource center with RCU responsible for Voc-Ed materials; (4) establish such programs as (a) occupational education for the handicapped, (b) a visual communications program, (c) conservation and recreational training, (d) a technical mathematics program in the high schools, (e) a data processing program in high schools, (f) concrete technology program in high schools, (g) a vocational education teacher aide program, and (h) an aerospace program in several high schools.

"#2 To survey available data on employment opportunities, occupational trends and future job projections for use in planning vocational programs, curricula facilitated, teacher training, recruitment and placement in the state." (2 cases)

The two RCU's that chose this objective as second priority saw a series of surveys of this type as the initial step leading to the establishment of better vocational education programs in their states. Apparently in both cases surveys were followed up by extensive planning for improved vocational education in the schools of these two states.

"#7 To identify and maintain an inventory of available occupational research and development resources in the state." (1 case)

This RCU has established a research library, based primarily on ERIC, AIM, and ARM publications and microfiche.

"#10 To review and monitor occupational research and development projects." (2 cases)

One RCU was involved in the funding of two studies by HEW: (1) "Development of and testing of single concept sound film loops for use as teaching aids," and (2) "Development of materials for the study of career opportunities in the world of work." The other RCU is monitoring newsletters, abstracts and reports from other RCU's and has established an ERIC microfiche center.

"#4 To coordinate occupational education research activities conducted within the state with those being conducted outside the state." (2 cases)

One RCU selecting this objective felt that adequate information about research and research related activity was vital to the development of the state's vocational education programs, through the establishment of an ERIC clearinghouse. It also used outside research for the following reasons: (1) involves people with a minimum of training in research, (2) provides a basis for further research involvement, (3) establishes a minimum cost system.

"#6 To act as a clearinghouse for all federal financial and other statistical reports relating to expenditure (accounting) of federal funds and program enrollments, etc." (1 case)

This RCU proposes to develop a research library and create mailing lists for the nation as well as the state.

"#14 To determine occupational research needed to resolve the major vocational education issues and problems." (1 case)

This was seen as a major objective of the U. S. Office of Education with the belief that "you cannot have effective research until problem areas are identified."

"#8 To stimulate activities, including pre-service and in-service training which would result in increased interest and improved competence in research." (1 case)

"It is important to keep a fresh supply of significant research being initiated," was the response of the RCU selecting this objective as priority two.

RCU Objective Priority Rank #3

"#5 To coordinate occupational education research activities conducted by state departments, local school districts, college and universities, and nonprofit organizations." (7 cases)

The RCU's that selected this objective as priority three saw this as a major function of the RCU. All complained of a lack of knowledge, lack of basic research, and lack of coordination of existing occupational education research in their states. All felt their RCU had been extremely successful as a coordinating agency through which information on current projects could be exchanged. A primary means of achieving this objective was through conferences and seminars with vocational educators, college and university staffs, and representatives of industry.

"#8 To stimulate activities, including pre-service and in-service training which would result in increased interest and improved competence in research." (5 cases)

The RCU's selecting this as their third objective either saw it as the initiating of research activities in occupational and vocational education among graduate assistants (college and university located RCU's) or as the establishment of an in-service program in research procedures among educators in the field.

"#2 To survey available data on employment opportunities, occupational trends and future job projections for use in planning vocational programs, curricula, facilities, teacher training, recruitment and placement in the state." (5 cases)

Some surveys included when this objective was chosen by RCU's were initiated by state legislatures through the state director of vocational education. Included in one survey were state employment personnel, state tax department personnel and 400 businessmen with estimates of number employed, annual turnover, estimated replacement needs, and training programs available. In addition, one RCU did a survey of employment opportunities based on the sex of employees.

"#4 To coordinate occupational education research activities conducted within the state with those being conducted outside the state." (4 cases)

Choice of this objective was based on the "need to know" what is going on in vocational education research to avoid useless duplication, and to lay a foundation for productive vocational education research. Newsletters, RCU library services, state research conferences, proposal writing conferences, etc. were used within the states. ERIC catalogs with microfiche files and readers were also used.

"#11 To stimulate and encourage occupational education research and development activities in state departments, local school districts, colleges and universities, and nonprofit organizations." (3 cases)

There was a definite lack of knowledge about vocational education research in these states; consequently, the RCU's felt their first job was to stimulate interest as a basis for later activities. Lists of personnel doing Voc-Ed research were compiled and made available, reviews of recent materials and dissertations were made, and consultative services to local schools were set up.

"#1 To disseminate information on progress and application of occupational research." (4 cases)

Primary methods of dissemination were newsletters and brochures describing operation of RCU's. One state set up plans for a clearinghouse of Voc-Tech material from the Ohio Center.

"#10 To review and monitor occupational research and development projects." (2 cases)

RCU's provided technical assistance in research design, proposal writing, statistical analysis, questionnaire writing, final reports, etc. Systems worked well but lack of funds precluded full development.

"#9 To serve as a statistical research reporting service for the State Department of Education." (2 cases)

The two states that chose this as objective three saw a major need to provide a single agency to collect, collate, and reduce to quantitative data the materials dealing with vocational education in their states. Both felt the program was successful.

"#13 To initiate research projects through involvement of RCU staff in proposal writing." (1 case)

The RCU prepared a brochure (5,000 copies), appeared at state conferences, and offered help in initiating research.

"#15 To identify issues and problems relating to the nature and place of vocational education in the state school system." (1 case)

This RCU acts as a research arm for the state division of vocational education. The need was to identify a new approach to vocational education in this state for planning purposes.

"#7 To identify and maintain an inventory of available occupational research and development resources in the state." (1 case)

A collection was made of all occupational research publications in the state. This list was compiled as annotated bibliography and included as a supplement to the RCU newsletter.

"#6 To act as a clearinghouse for all federal financial and other statistical reports relating to expenditure (accounting) of federal funds and program enrollments, etc." (1 case)

The RCU interpreted the objective as a state resource center for occupational research findings. Extensive use was made of the ERIC center and vocational technical center materials.

"#12 To conduct occupational research and development projects." (1 case)

There was a need in this state for immediate research in an area lacking trained research personnel.

Of special interest is the use of a team approach with a member of the RCU staff acting as project officer to assist in planning and designing research, in analysis of data, and drawing conclusions and recommendations. In this way one professional member of the RCU could control and coordinate a number of research projects. At the same time training and guidance in research could be provided by the RCU.

"#16 To provide support for line personnel in the Voc-Ed branch." (1 case)

This RCU saw its primary duty as a supportive group to the personnel in the state department of education offices. As such it did surveys, developed a reference library, assisted in preparation of area school standards, and made modifications to the state plan of vocational education.

RCU Objective Priority Rank #4

"#1 To disseminate information on progress and application of occupational research." (8 cases)

The RCU's selecting this objective as number four in priority did so because it was one of the "prime objectives" in the original establishment of the RCU's, and it cut down the "time lag" between the completion of research and implementation by those in the field.

Newsletters, public speaking, ERIC materials centers, and brochures sent to vocational educators were the major means of dissemination. These RCU's felt that this objective was very successfully met.

"#7 To identify and maintain an inventory of available occupational research and development resources in the state." (4 cases)

This objective evolved from a need to do something with the large amount of materials sent to the RCU's. One state developed a "Key Word" approach to systematize its files. Another established contacts with sources of vocational and occupational information throughout the state and arranged to have copies of all relevant materials sent to the RCU for its files. Another compiled an annotated bibliography of RCU materials for dissemination throughout the state.

"#2 To survey available data on employment opportunities, occupational trends and future job projections for use in planning vocational programs, curricula, facilities, teacher training, recruitment and placement in the state." (4 cases)

RCU's selecting this objective saw such surveys as essential to the development and planning of all areas of vocational education. Surveys were conducted in both industrial and occupational fields and in schools and colleges. Examples include surveys of occupational trends, student populations, educational aspiration, agricultural needs, etc.

"#14 To determine occupational research needed to resolve the major vocational education issues and problems." (4 cases)

Research, to be effective, must be directed to current problems. RCU's saw objective number fourteen as a means of planning their operations. Advisory committees, consulting committees, and *ad hoc* committees were used to determine needs of vocational research.

"#8 To stimulate activities, including pre-service and in-service training which would result in increased interest and improved competence in research." (2 cases)

The RCU's selecting this as their fourth objective felt that there was very little research competency in their states. They conducted such activities as research training workshops, a computer workshop, a research methods class, and individual consultant services as well as encouraging use of AIM, ARM, and ERIC materials.

"#5 To coordinate occupational education research activities conducted by state departments, local school districts, colleges and universities, and nonprofit organizations." (3 cases)

These RCU's found very little coordination of research in their states; as one stated, "research seemed to be going on in secrecy." All three RCU's complained of limited staff and funds, especially the latter. All felt that vocational research had been improved in their state as a result of RCU efforts. They felt the need for coordination of research outside of as well as within the states.

"#11 To stimulate and encourage occupational education research and development activities in state departments, local school districts, colleges and universities, and nonprofit organizations." (3 cases)

These RCU's felt the need to make teachers, administrators, and others aware of the virtues of research. They felt a resource bank of interested personnel was necessary to initiate any continuing program of research in their states. Methods ranged from short workshops and conferences to direct telephoning of key personnel throughout the state.

"#12 To conduct occupational research and development projects." (3 cases)

Three states felt that RCU's should conduct research. Meetings were held with state employment, union, and management groups, as well as with university faculty. Basic activities included pilot studies, community surveys, student interest data, evaluation criteria and statistical analysis, placement information, migration patterns, job opportunities, and curriculum studies.

"#13 To initiate research projects through involvement of RCU staff in proposal writing." (2 cases)

These RCU's felt they were too small and lacked sufficient funds to conduct their own research projects. Instead they concentrated on training people to write proposals, on listing sources of funds, and initiating research. Although success was limited at first, both RCU's are now pleased with results of these activities.

"#3 To create change in the administration of local vocational education programs." (2 cases)

These RCU's felt that there is a need to create a "critical mass" of interest in Voc-Ed. Activities included experimental and demonstration projects, the establishment of basic vocational services with functional programs based on occupational needs, developing a cooperative program with local business for pre-work experiences, and establishing channels for placement and follow-up.

"#4 To coordinate occupational education research activities conducted within the state with those being conducted outside the state." (1 case)

This RCU felt the need to "pinpoint" problems and have specific individuals or studies deal with each problem. A research professor and an assistant from the state university were employed until a cutback of funds cancelled their services.

"#16 To develop evaluative criteria from or for programs in Voc-Ed." (1 case)

The RCU was tied to the State Department of Education and given the specific assignment of developing evaluative criteria for vocational education. They worked with subject area consultants and developed procedural guidelines.

"#16 To develop or act as an information center." (1 case)

The RCU developed an information center since the unit found it could not accomplish its major priority of coordination without such a center. Ties were made with its ERIC and the Clearinghouse for Federal

Scientific and Technical Information (CFSTI) and the Wisconsin Machine Search Center.

"#16 To implement recommendations of planning and advisory committees." (1 case)

Demonstration proposals, program guides, and other materials were developed to help local school systems implement recommendations. Also, a systematic statewide program of planning implementation, and evaluation was developed.

RCU Objective Priority Rank #5

"#5 To coordinate occupational education research activities conducted by state departments, local school districts, colleges and universities and nonprofit organizations." (6 cases)

In these six states it was strongly felt that the RCU was the one centralizing agency that could accomplish such coordination. Most states had a variety of widely divergent programs with no cooperative relationship among or between them. The RCU's not only coordinated research but offered a central location for reports, dissertations, studies, etc., where they would be available to all.

"#12 To conduct occupational research and development projects." (5 cases)

The RCU's found the number of vocational education people in their states with research competencies to be virtually non-existent. Consequently, they were forced into programs of research to stimulate and initiate other research in the future. Some activities were a feasibility study to investigate structure and operation of an information center, a scale for measuring attitudes toward Voc-Ed, a study of school's role in Voc-Ed, and an occupational survey of former students.

"#8 To stimulate activities, including pre-service and in-service training which would result in increased interest and improved competence in research." (4 cases)

These RCU's found almost no vocational research accomplished in their states except for an occasional graduate thesis. As a result, the need to stimulate research at the local level was strongly felt. Of special interest were the weekly seminars of one RCU with vocational education teachers, and the special vocational education research course conducted one summer at the state university sponsored by the RCU.

"#1 To disseminate information on progress and application of occupational research." (4 cases)

The RCU's felt past research was not being properly used. Activities included abstracts, summaries, and copies of research disseminated throughout the state. ERIC, ARM, and AIM materials were widely used to disseminate research information. Newsletters, conferences, and consultative services were also used to get information out into the field.

"#10 To review and monitor occupational research and development projects." (3 cases)

The RCU's choosing this objective gave four main reasons for their choice: (1) to maintain an awareness of current projects; (2) to allow RCU staff members to act as interpreters between researcher and consumer; (3) to establish the RCU as an agency of aid to researchers rather than a mere clearinghouse; (4) to help the RCU better coordinate efforts within the state.

"#9 To serve as a statistical research reporting service for the State Department of Education." (3 cases)

Current statistical data in these states was considered unreliable. The RCU's compiled data for the state director of vocational education on a variety of projects and demographic reports.

"#2 To survey available data on employment opportunities, occupational trends and future job projections for use in planning vocational programs, curricula, facilities, teacher training, recruitment and placement in the state." (3 cases)

Most of these surveys were in connection with other RCU activities and provided necessary background data. They were typical occupational and demographic surveys.

"#11 To stimulate and encourage occupational education research and development activities in state departments, local school districts, colleges and universities, and nonprofit organizations." (2 cases)

The two RCU's which picked this as their fifth objective did so because they felt it was one objective they could perform with a limited staff. No outstanding activities were listed.

"#7 To identify and maintain an inventory of available occupational research and development resources in the state." (1 case)

This RCU felt the need of a complete inventory of available occupational research and development resources. A retrieval system is being implemented to secure current and future materials. This was coordinated with a dissemination system in the state.

"#4 To coordinate occupational education research activities conducted within the state with those being conducted outside the state." (1 case)

This RCU believed interstate stimulation was vital to a good research program. The staff worked with ERIC, ARM, and AIM materials and Southside Research Coordinating Council, Vocational & Technical Education Center at Ohio State, and the Center for Occupational Education at the university.

"#3 To create change in the administration of local vocational education programs." (1 case)

This state has an excessive number of small school districts with small high schools. The RCU hopes to arouse interest in area vocational schools.

RCU Objective Priority Rank #6

"#13 To initiate research projects through involvement of RCU staff in proposal writing." (6 cases)

The six RCU's that chose this objective felt it was a major method of stimulating interest in research and that many individuals had good ideas but did not know how to design a research project, write a proposal, and get it funded. One RCU kept a full time research consultant solely for this purpose.

"#8 To stimulate activities, including pre-service and in-service training which would result in increased interest and improved competence in research." (5 cases)

Again the RCU's that chose this objective felt that a lack of experience in research and development activities was a major fault in vocational education. One RCU has a promising intern program for graduate students in research in vocational education. Others are conducting seminars and conferences to stimulate interest in research in this field.

"#12 To conduct occupational research and development projects." (5 cases)

Repeatedly these RCU's make the statement that there is a critical lack of training and interest in research and development activities. While they feel hampered by an inadequately trained staff and also by limited funds, they hope to stimulate interest in research in Voc-Ed.

"#6 To act as a clearinghouse for all federal financial and other statistical reports relating to expenditure (accounting) of federal funds and program enrollments, etc." (4 cases)

One of the RCU's in this group described an active distrust among vocational educators in its state. The others feel research is not disseminated widely enough and that there is no central clearinghouse in the state where vocational educators can go for information. Major activities were surveys, consultation services, curriculum planning, and at least one attempt to train graduate students in vocational and occupational research.

"#10 To review and monitor occupational research and development projects." (3 cases)

In at least one case the RCU consisted of a single individual, the RCU director, who had to "sub contract" research and other activities. Another RCU saw this as an integral part of objective #1, to disseminate information. Still another provided "seed money" to start projects which were then monitored and reviewed as a matter of course.

"#14 To determine occupational research needed to resolve the major Voc-Ed issues and problems." (3 cases)

RCU's felt that needed research should be identified and a priority system should be established for vital research needs in vocational education.

"#4 To coordinate occupational education research activities conducted within the state with those being conducted outside the state." (2 cases)

The RCU's choosing this as an objective did so to draw on the experience of others and to introduce ideas from the "outside" into state situations in hope of stimulating in-state research. Of interest was a plan to exchange materials, newsletters, etc. with other RCU's through a national mailing list.

"#1 To disseminate information on progress and application of occupational research." (2 cases)

These two RCU's saw dissemination as an essential feature of successful research. ERIC, ARM, and AIM materials centers were established in RCU's. One RCU originally planned to include a dissemination specialist on its staff but failed to indicate if this individual was actually employed.

"#2 To survey available data on employment opportunities, occupational trends and future job projections for use in planning vocational programs, curricula, facilities, teacher training, recruitment and placement in the state." (2 cases)

Both RCU's chose this objective to meet specific local conditions that necessitated such a survey. Data were then utilized by the State Director of Vocational Education in planning and curriculum studies.

"#7 To identify and maintain an inventory of available occupational research and development resources in the state." (1 case)

This RCU developed a list of persons conducting research in the state and a collection of publications and dissertations. No additional information was given.

"#5 To coordinate occupational education research activities conducted by state departments, local school districts, colleges and universities, and nonprofit organizations." (1 case)

This objective was chosen primarily as a means of contacting vocational education agencies in the state for the purpose of obtaining grants. The RCU distributed information relative to U.S.O.E. research projects.

"#11 To stimulate and encourage occupational education research and development activities in state departments, local school districts, colleges and universities, and nonprofit organizations." (1 case)

This RCU stated that proposals were written, assistance was provided in writing other proposals, sources of funding were explored and developed, researchers were recruited (did not say how) and trained, and research projects were designed and carried out. Also a graduate course in vocational education research was taught by RCU staff.

"#15 To identify issues and problems relating to the nature and place of vocational education in the state school system." (1 case)

This RCU is interested in a vertically integrated occupational curriculum for all schools in the state. They see occupational education as an integral part of the total educational process. Each grade level should have some occupational materials in the curriculum. They worked with state department educators and collected material on the "cluster concept" of occupational education from other states.

"#16 It was considered desirable to attempt to synthesize available data if possible." (1 case)

The RCU stated a wish to "accumulate reports of various agencies." No other information was given.

"I. E. In a short statement below indicate factors which have been an impediment to the achievement of the objectives established for your RCU."

Staffing-General

Twenty-two of 39 responding RCU directors indicated the greatest impediment to the achievements of the RCU is the problem of staffing. This problem is closely tied to the problem of funds for salaries. Problems include: high turnover of staff which makes it difficult to maintain continuity; difficulty in attracting able people to the state department of education because of the low salary schedule; staffing problems resulting from the uncertainty of continued federal support; the need for an information specialist for the information center; lack of flexibility between hiring personnel and contracting for services; little impact on local programs because of lack of manpower; lack of professional personnel because of the indefinite status of funding and the amount of money available.

Staffing-Unavailability

Thirteen RCU directors mentioned the recruitment of qualified personnel for research activities as the second problem relating to staffing. There is considerable difficulty in recruiting people who are trained to do research type activities and who are interested in working in the field of research. Comments related to the problem include: difficulties in recruiting a well qualified vocational researcher; lack of adequately trained persons to conduct research; inability to obtain competent research personnel; limited number of vocational educators with time and skill to be involved with research and development projects; graduate assistants have been almost impossible to employ; inability to find initial staff with the qualifications needed for those type of personnel; lack of trained education researchers in the state; extreme difficulty in finding persons competent in both occupational education and in research; lack of research oriented staff in the state free to engage in vocational projects; and inability to find a first rate occupational research design specialist.

Funds

Thirteen RCU directors mentioned lack of and uncertainty relative to the availability of funds as being impediments to the successful completion of their objectives. Problems listed here include: a limited amount of money which could be allocated to the RCU; uncertainty about the availability of funds for the operation of the RCU; a lack of federal funds for local research; extremely limited state and local dollars for funding research projects; a lack of discretionary research funds; and lack of clerical help to expedite the completion of reports.

Research Climate

Fifteen RCU directors indicated that the climate within the state opposed to research and development activities was a factor which impeded the successful completion of their objectives. Included were comments relating to communications difficulties which seemed to relate to the climate either within the agencies themselves or in relation to the state at large. Specific problems mentioned include the lack of real, sincere commitment to research by vocational educators; a lack of understanding of the nature of research and development activities on the part of administrative and supervisory personnel; a basic unfamiliarity with research methodology and its role in program planning by vocational educators within the state; lack of legislative backing for research and development; lack of good communication with vocational administrators; lack of positive research attitude and climate among vocational educators; the need to eradicate the traditional lines which have developed among the various groups concerned with vocational education in the state; involvement of teachers and administrators in routine activities which makes it difficult for them to become involved in new tasks such as research; lack of awareness on the local level of available research; narrow attitude regarding research and its usefulness on the part of the state department of education officials; the attitude of teachers and administrators against research. Communications problems which also seem to reflect something about the local climate include the problems of communications within the department of education; lack of frequent and comprehensive face to face communication with state level staff members and other administrators; lack of good communication with vocational administrators; lack of confidence and understanding between the state vocational instructional specialists and the RCU.

Structural Difficulties

Ten RCU directors mentioned problems relating to the political situation within the state or to administrative organizational problems either within the RCU itself or with the RCU relative to its sponsoring agencies. Specific problems listed include: we have had three state directors of vocational education and this has led to lack of freedom to utilize contracted funds to the best possible advantage; the way people in power stifle the built-in freedom of the RCU to do things that can't be done under existing establishments; the requirement of the agency to perform duties other than planned functions; less interest on the part of the sponsoring university in promoting vocational research than in enhancing their own graduate programs; no clear line of responsibility of the RCU to a state agency; the lack of the effective control by the RCU director when the RCU is part of a larger state organization, specifically the state department of education; the location of the RCU _within_ the university where it's located (seven or eight blocks from the college of education which cuts down on interaction), lack of hiring authority by the RCU director for his own staff; lack of flexibility because of the required state support; and changes in the political structure of the state which has led to a cautious atmosphere within the state department.

Internal Impediments

Seven RCU directors listed various internal impediments to the successful completion of their objectives. These include a growing volume of research materials available with no adequate system of review and evaluation; the amount of "bureaucratic" procedures required to initiate and follow through on many projects; the lag between the production of research results and their easy access through automatic search and retrieval; the time lag from project approval to project initiation; the lack of creative ideas (our own); difficulty in organizing filing and library materials; the cost in time and professional talent in writing proposals. At least two of these impediments seem to suggest possible roles which RCU's might actually play to alleviate the problem. For instance, developing a technique for reviewing and evaluating research materials might be a worthwhile activity for an RCU. Also, developing and disseminating a comprehensive technique for organizing and filing library materials could be a worthwhile project.

Outside Impediments

Only four RCU directors mentioned problems which related specifically to outside agencies including the U.S.O.E. Problems relating to the U. S. Office of Education include a lack of effective communication at the local level and contact with the U.S.O.E. particularly on the clarification of funds available for RCU's; the necessity for competing with larger states and their resources for U.S.O.E. approval and funding of proposals which leads to few projects being awarded in the small state; and too much time consumed in in-house justification (only one report a year should be required). Another problem which was mentioned relating to the larger system is the lack of a detailed long range plan in vocational and technical education which makes it difficult to select research projects which give direction to the development of vocational education.

"I. F. Please write a succinct statement of the strengths of your RCU."

Interagency Cooperation and Administrative Relations

Twenty-nine RCU directors listed factors within this general area that account for the strength of their RCU. Strengths listed include: our RCU has the enthusiastic cooperation and support of the state board of education and other administrators and agencies within the area; the number and quality of working relationships with other agencies involved and concerned with vocational education; being located at a university outside the office of the state director; cooperation with the state universities to make work study students available and house a branch office of the RCU; desirable coordination and communication of the RCU with state staff, university personnel, and local school administrators;

our RCU probably gets its greatest strength in the fact that it is located in the division of vocational education; our report has been a great aid to people in the field; location in the university with access to data and computer processing facilities, as well as resource personnel from a wide variety of disciplines; assistance from state vocational technical education staff and university personnel is readily available whenever needed; the extent to which close cooperation has been established between all the elements involved in vocational research and dissemination; the strength of our RCU is the fact that it is university-sponsored but has close ties with the State Department of Vocational Education; our RCU is housed and administered by an on-going research agency--this leads to (1) the immediate prestige as an integral member of a research agency, (2) immediate access to expertise in disciplines peripherial to vocational education, (3) identification of prospective researchers has been enhanced, (4) future direction of RCU research and development activities can parallel the lines of an on-going research agency; confidence in the RCU by vocational educators statewide; the support and encouragement of the nationwide RCU organization; it is now serving as the research arm of the state board; field support and inter-agency cooperation; the RCU is a part of the state department of education; its use of advisory groups, our facilities and equipment are good; the RCU has established close relationships with other RCU's in this region; access to and working relationship with a media center for vocational education.

The sampling of written comments above indicates the importance which the RCU directors are placing on the establishment of good working relationships both with the agency in which they are housed and with other agencies relating to vocational education in their geographic area.

Achievements-Goals

Seventeen of the RCU directors stated the strengths of their RCU in terms of their goals, their achievements, the capabilities of their RCU, or similar kinds of factors. Comments included: our RCU has had a major effect on the development of vocational education in the state; report is very effective throughout the state; we have trained staff members so successfully that a number of RCU directors in the nation have come through the ranks of our RCU; the success of our RCU is directly related to the selection of projects that bring action in the development and expansion of vocational education; our projected program is planned for the year on the basis of occupational education needs; stimulation of interest and desire to do research with support in the form of money and services at all local and state levels is greatest of all strengths; proximity of operation with abilities designed specifically for each state's potential researchers; another strength has been the unit's ability to coordinate research activities although they have been limited in number; the library of occupational information is a basic strength; the ability to focus on those vocational problems which were identified to be state level perspectives; the ability to focus across the board on problems which were of concern to vocational education rather than those which were of primary concern to one vocational service; the ability to provide consultative services and data processing services to local districts for research projects; the undertaking of a large number of studies and surveys; our clear objectives and growing staff are important strengths; we have been concerned with practical applications as opposed to theoretical research; the use of ancillary (4a) funds to use in developmental activities; and the use of modern planning and control techniques; equipment and library facilities including microfiche and equipment for duplication; ideal facilities for housing the RCU; the research training program with doctoral research assistants; consultative services; working with local schools in performing surveys or action research in the area of vocational-technical education; the concept of contract research-discretionary awards; relatively few publication but with a noticeable impact on the profession.

Staffing

Fifteen RCU directors indicated that one of their major strengths is either the staff itself or the patterns used in staffing their RCU's. Comments include: the attempt to staff the unit with persons outside of occupational education has provided a strong inter-disciplinary approach to occupational education (the staff includes a Ph.D. with a background in economics and sociology and an Ed.D. with a background in educational psychology); unyielding commitment by RCU staff to vocational education that meets the problems of the times in spite of barriers posed at state and local levels; positive approach to all problems and change with the attitude that we will find a way, that we can do it; a strength is a staff that has experience and training in Voc-Ed and is dedicated to the improvement and expansion of programs designed to prepare persons for the world of work; the strength of the RCU is enhanced by the specialized individual competencies of the professional staff and the expertise and efficiency of the clerical staff; the varied occupational and academic backgrounds of the staff members; a director and two other staff members who have been diligent in the performance of their duties; a well rounded staff which has representation in most Voc-Ed service areas; myself (which I state honestly) having lived and worked in every major part of the state; a staff having research experience and training; staff that is program development oriented with a strong interest in research; a staff with its research capability including the experience and expertise in dissemination of research information.

"I. G. Please write a succinct statement of the weaknesses of your RCU."

Due to inadequate explanation of the terminology which would have indicated the differences between "factors which have been an impediment" and the term "weaknesses of your RCU", there is a considerable amount of repetition of answers between previous section I. E. and this question. Comments are included here for comprehensiveness, although they have not been as finely differentiated into categories as they were in section I. E. above.

Staffing and Funds

While it would seem that inadequate funds are more of an impediment to the achievement of objectives than a weakness of the RCU itself, a large number of RCU directors listed inadequate funds and problems relating to them as one of their major weaknesses. Closely related to this were the problems of inadequate staffing discussed in section I. E. above. Specific problems listed include: inadequate funds which limits the size and quality of the staff and the support that can be given the research programs in the state; inadequate financial support from the state department for RCU research activities; lack of funds to support needed research and development activities within the state; lack of personnel because of fund cuts in the new grant; budgetary uncertainty with related difficulty in recruiting and retaining highly competent and professional personnel.

Problems relating to staffing include: a dearth of trained educational researchers in the state; unavailability of research staff for field services; a lack of research competency on the part of the majority of the staff members; size of staff; uncertainty of what qualified a person to work in an RCU; the necessity of accepting more responsibilities with a budget which does not provide a comparable growth in personnel; and lack of sufficient equipment and staff in the dissemination center. Twenty-three RCU directors indicated weaknesses of their RCU included problems in the areas of staffing and funds.

Communications-Public Relations

The weaknesses listed by nine RCU directors included problems in communications either with other agencies with which they deal or with practitioners in the field. Specific problems include: the inability to interact with personnel within occupational education and with other persons at other universities and colleges throughout the state (the suggestion was made that field representatives could attack this problem); lack of a public relations program; inability to develop a system for providing practitioners with research-related information which they should have; lack of close interaction with state department personnel; lack of acceptance by certain state vocational supervisors and teacher educators; inadequate dissemination features; lack of success in helping districts to secure outside funds for their vocational R & D work.

Structural Factors

Ten RCU directors indicated that the weakness of the RCU centered around such things as the political situation within the state, allocation of time, location of the unit, etc. Specific problems include: not enough time; political struggles within the state wherein the state director is trying to gain control of the unit, operating without a state director of vocational education since he has not yet been appointed in the state; lack of emphasis on a general service orientation within the state; failure to use consulting and advisory committees; uncertain status within the bureaucracy of the college of education; the present lack of a data base which can be used to evaluate the success of various programs; lack of legislative backing; the inexact nature of the science of research in education; and a lack of flexibility in operation due to being located in a state agency where the chief state school officer is an elected official.

Other

Two additional weaknesses were mentioned including: library resources are not organized for most efficient use; an information retrieval system has not been developed; and there has been a delayed establishment of the microfiche capability of one RCU because of the lack of staff to summarize and repackage research findings.

"III. 1. b) Why did you decide these projects were the best?"

Met Needs of the Field

From the comments regarding reasons for choosing five research topics as the best done by the RCU, it appears that many RCU's choose their research projects on the basis of the needs of the field, or at least their perceived needs of the field, rather than on the basis of the extent to which those projects will meet the stated objectives of the RCU. Reasons listed include: attacks a relatively neglected problem which is high on the priority list for our society today; these studies are innovative and have potential for making significant contributions to the problem of curriculum development in vocational education; very well accepted especially by researchers and teacher educators; a research training program has been needed in the profession and ours is unique and successful; follow-up of graduates is an important way to assist in revising and improving the vocational program; these studies were two of the better manpower needs surveys undertaken with the support of 4(a) and matching funds; well designed and resulting in needed useful information; while the effects of these projects is difficult to measure, "action" oriented research and development projects have measurable and immeasurable value; because these projects are designed to produce information and data directly related to problems of local vocational educators; these seem to have the most potential for bringing about change in Voc-Ed programs; these projects had more impact on education or influence on other research activity; these projects involved more of the kind of people who are in a position to influence the future development of Voc-Ed in our state; these are the type of activities that will potentially have the greatest effect in increasing research activity in vocational education in the state; the projects are addressed to high priority problems in Voc-Ed in this state and could have major impact; the first three were chosen because of the impact they will have on Voc-Ed. Twenty-eight RCU directors stated reasons in this category for choosing the topics which were chosen as their five most successful projects.

Objectives

Nine RCU directors stated reasons for their choice of five best projects which fit the category of meeting the objectives for which the RCU was established. A related reason given was that the selected studies provided a foundation upon which to build the RCU program. Some of the reasons stated were: because they fit in with the objectives given high priority; these were derived from consideration of rationale for the unit development; each project points specifically to the accomplishment of overall RCU objectives; projects were important in establishing the RCU as a part of the Voc-Tech educational system in the state; they all contribute to the development of the foundation which future activities depend; development of the proposal was paramount in demonstrating the technical assistance the unit can provide the local schools in the areas of research and program planning; these projects represent those involving the largest amounts of money; they tended to show positive results in relation to the youth in the state who wanted Voc-Tech education.

Other

Four RCU directors stated other reasons for choosing five projects as important. These included: improving public relations; including the project because its design as an experimental study is very outstanding; the study was chosen because of the example it presented of a high school teacher conducting a limited research project which will help encourage others to do research; one was well designed and attacks a promising new concept in vocational education; and one was chosen because it had a constructive influence on participants through their contacts with teaching media. One RCU director stated "I cannot give a meaningful answer to this question!"

"III. 2) a) Does your RCU provide services to colleges and universities in your area?"

Thirty-six RCU directors responded indicating that they do provide services to colleges and universities. The services which are provided fall largely under the areas of dissemination and consultation and to a lesser extent involve training, funding of projects, and the coordination of research activities.

Dissemination

Eighteen RCU directors indicated that activities in which they engage relative to universities fall generally under the heading of dissemination. This includes distribution of research materials relating to university deans, vocational technical educators and faculty interested in vocational research. Much of what is termed dissemination is the sending of regular newsletters, research reports from ERIC and the U. S. Office and other RCU's. Where initiators of these kinds of services were identified it was noted that it was generally the college or university staff member who requested services. Comments relating to the effectiveness of these services were general and ranged from very effective to "while we have done a lot of this it is not nearly as much as we might be doing."

Specific activities listed include: dissemination of research materials; educational data, enrollment and follow-up data of vocational technical education students; providing research data from department records; providing materials from the information system; resource center for graduate students and college and university staff including ERIC and other library materials; provide quarterly reports for research activities; provide mailing lists, cover letters, and limited clerical services to graduate students for conducting studies of mutual concern; university and community colleges provided with copies of U. S. Office memorandums on research needs and related activities; reports, surveys, and other documents acquired by the RCU are announced by regular issue of acquisition lists; presented findings from a statewide model for occupational opportunities to host graduate classes in vocational education; keeping research and teacher education personnel informed of problems needing study; supplying recent research findings and suggested uses of those findings.

Consultation

Fifteen RCU directors indicated that they provide services which fall basically in the area of consultant services. Comments include: act as consultants when desired; services to colleges and universities consist primarily of research stimulation and facilitation; provide consultant time and travel funds; provide assistance with staff and graduate assistant research at each of the state colleges and universities; information services, review of literature, consulting services; aid in writing proposals for federal or state funding; assistance in finding sources of funds to conduct research in occupational education; assessing the value of research proposals; establishing guidelines and procedures for the completion of state and federal reports; developed research proposal guidelines; provided consultative services to graduate students and faculty; the RCU staff acts as resources for colleges and universities professors who are teaching Voc-Ed courses and research and statistics courses.

3

Training

Nine RCU directors indicated that their RCU is involved in providing services of a training nature to university and college personnel. Comments include: planning and directing activities designed to develop research competencies; conducting training sessions; RCU staff members work closely with teacher education staffs of colleges and universities; all teacher educators in the state are informed weekly of new research reports and materials and RCU staff members participate in research classes by serving as guest lecturers; the RCU director has taught classes by request; the RCU has participated in university sponsored conferences, workshops, and seminars; the RCU assists in recruiting researchers in vocational, technical, and adult education.

Funding

Ten of the RCU directors indicated the RCU is involved in one way or another with funding of research or other kinds of projects. Comments include: the RCU provides technical support to graduate students; the RCU has performed research projects for the state's technical colleges; conducting research studies for these institutions; the RCU has been used to plan and fund research workshops; we support two full time graduate research assistants at the university in vocational and adult education; we provide assistance to individuals at the three state universities in terms of funding through the use of 4(a) monies and consultation; this RCU provides funds to support three graduate research assistants at the university; we provide an intern research training assistantship to a graduate student studying for the doctorate; grants and stipends to faculty and graduate students for vocational research projects; funding graduate assistantships; support of graduate students; proposal funding.

Coordination

Five RCU directors indicated that they are involved in the coordination of research activities with universities. Comments indicate that less coordination is being achieved than would otherwide be possible because of the limitations of staff size. Comments include: comparatively little coordination can be accomplished other than limited subcontract involvement; providing contacts of similar programs and projects effectiveness restricted by staff size; coordination of occupational research in the state; coordination of surveys of employment opportunities, occupational trends, job requirements, and needs for occupational education; a review of the twenty-eight institutions providing Voc-Ed teacher education in the state.

"III. 2) b) Does your RCU provide services to the State Department of Education?"

Consultation

Twenty-four of the RCU directors indicated that they provide services for the state department which may be called consultative services. Specific activities include: confer with directors of the vocational section on research topics and research needs; the evaluation of pilot or innovative vocational-technical programs; information on projects; mutual consultation and state leadership direction; more than 90% of time and energy is spent in improving and changing administrative services for the state department of education and the many local school systems and studies for governmental agencies; statistical analysis; assistance in program evaluation; aid in the design and writing of research projects for members of the department; identify pertinent research topics; provide consultative assistance in identifying potential research problems.

Clerical

Six RCU's indicated that the services that they provide the state department of education involved duties which may be classified clerical. These include preparation of federal reports covering vocational education; serving as statistical report analyst; preparing reports; collecting enrollment data for the bureau of vocational education, preparing vocational education brochures; provide research service in support of the Voc-Ed division of the office of the state superintendent of public instruction.

Voc-Ed Division

Four RCU's indicated that their responsibilities to the state department involve simply being another division of that department. Comments include: providing services to the state Voc-Ed staff which is part of the state department of education; the RCU is an organizational segment of the state department of education--technically therefore, the RCU does not provide services to the state department but serves as a function of the state department; the RCU is one of the four divisions in the bureau of research; the RCU is a component part of the state department of education.

Conduct Research

Five RCU directors indicate that their RCU conducts research projects for the state department of education. Comments included: developed procedure for and conducted study of local schools program selection; school sites for area Voc-Tech schools; the RCU staff members have undertaken a number of studies at the request of the State Division of Vocational-Technical Education; the RCU designs and conducts research for the Division of Voc-Ed and conducts projects jointly with the state Voc-Ed personnel. Another area of RCU involvement in conducting activities includes conducting in-service training programs for persons interested in developing research competencies. Two of the RCU directors indicated that they worked actively in operating in-service programs and workshops which include state department personnel.

"III. 2) c) Does your RCU provide services to other state agencies?"

Two kinds of information from the questionnaire are included here. In Table 1 the range of numbers of agencies with which RCU's are working is illustrated. Table 2 lists agencies with which RCU's are working.

Table 1

Number of RCU's Providing Services	Number of State Agencies Serviced
3	1
7	2
4	3
3	4
3	5
2	6
2	7
2	9

Table 2

Industrial Research in Extension Center

Industrial Development Commission

Employment Security Division

The Cooperative Area Manpower Program

Technical Action Panels

Concentrated Employment Program

The State Program Planning Division

The Regional Manpower Advisory Council

The Educational Research and Development Council
(which the RCU was instrumental in establishing)

State Board for Private Trade and Technical Schools

State Board of Planning

Department of Labor and Industry

The Department of Commerce

Department of Agriculture

The State Chamber of Commerce

The U. S. Department of Commerce

The U. S. Department of Labor

The Appalachian Regional Planning (Agency)

The Employment Security Service

Department of Health

Department of Labor and Statistics

The State Library

Department of Public Welfare

Manpower Development and Training

The State Vocational Rehabilitation Division

The State Board for Higher Education

The State Association of Automobile and Farm Equipment Dealers

The Bureau of Apprentice Training

Department of Community Affairs

The State Development Commission

Commission on Youth Affairs and Services

State Division of Finance

The Governor's Office

Clearinghouse for Federal and Scientific Information

Technical Education Centers

Educational Television Network

The State College Board

The State Junior College Board

The State Coordination of Indian Affairs Commission

The State Commission on the Problems of Aging

The State Division of Corrections

The Interagency Council on Public Offenders

The State Fire Marshall's Office

The State Economic Council

The Governor's Higher Education Committee

"III. 2) d) Is your RCU involved with the ERIC Center at Ohio State University?"

Of the RCU directors responding, thirty-six responded yes to this item while three responded no; regarding the kind of involvement with the ERIC Center, many of the responses were similar. The RCU's submit their reports to the center for publication. They receive AIM, and ARM, various research abstracts and journals, and they have collections of microfiche varying in completeness.

Other comments regarding involvement with ERIC include: a statewide center for processing requests for information related to research in Voc-Ed; assisted in editing their "Review-Synthesis" series; the RCU staff has developed a series of lectures on the ERIC system and particularly the Voc-Ed Clearinghouse; repackage and distribute information on vocational education; our RCU serves as a center which provides information services to the users of the state; member of an *ad hoc* committee on strengthening the linkage of RCU's with ERIC; we have been utilized as a reactor and contributor to the proposed dissemination system now being developed by ERIC; we have conducted a series of six ERIC usage workshops in the community colleges of the state; one member of the staff has been designated the unit dissemination specialist.

Only one comment in these written statements indicated negative relationships with the ERIC Center at Ohio State. One RCU Director said "we have received little real cooperation from the ERIC Center at Ohio State but are expecting such cooperation to be forthcoming in the near future."

"III. 2) e) Is your RCU involved with the regional education laboratory in your area?"

Twenty-three RCU directors indicated that they are involved with the Regional Education Laboratory. Comments indicate that the involvement is very limited. Only five directors indicated direct participation with the regional education laboratory. Activities include: the director and the coordinator of the RCU are consultants for the regional lab and have taken part in several of the lab projects; the unit has received about $19,500 from the education lab for four projects; I serve as a member of the lab's advisory council and we are also involved in field testing some pre-service training packets; our RCU has helped identify qualified people within the state to assist the educational lab in carrying out promotional activities relating to their occupational education programs; we have been involved in formulating a cooperative proposal pertaining to an evaluation project although this was subsequently not funded; the regional lab has helped publicize the top role and function of the RCU throughout the state.

The rest of the comments center around such limited aspects as exchange of information, limited consultation, visits to the regional laboratory, the supplying of information, answering of questionnaires, meeting with the planning board of the lab, free flow of correspondence, and good communications. Several RCU directors indicated they are planning to initiate communication with the laboratory and one director indicated that they have approached two regional labs but have had no response.

It appears that the regional education lab is either not an institution which offers many possibilities for work with the RCU or else the RCU's have not yet had time, resources, or initiative enough to establish contact with regional laboratories. That one regional laboratory has provided funds to an RCU may indicate that the regional lab is a resource worth investigating by RCU directors.

"III. 2) f) Is your RCU involved with the Regional Office of the U. S. Office of Education?"

Thirty-six of the responding RCU directors indicated that their RCU is involved with the Regional Office of the U. S. Office of Education. This involvement hinges heavily on the small grant program administered through the regional offices. Seventeen RCU directors indicated that their participation involves the small grant program in one way or another. Comments include: we work with them on trying to get small grants funded; discussion of small grant proposals; we review all vocational education proposals; work in connection with proposals for small grants projects--relationship has been excellent.

Two RCU directors who are involved in the small grant program indicated that they have no official contact whatsoever with the Voc-Ed personnel in the regional office and when these personnel are in the state in which the RCU is located they do not bother to visit the RCU. Another director suggested that the trouble with the small award is that the proposal for that award is as complex as the proposal for a large grant and suggests the elimination of the regional office and the making of funds available to the states in the form of discretionary funds.

Three RCU directors indicated direct involvement with the regional lab in directing proposals which will be submitted to Washington. One indicated that his RCU is involved in the collection of enrollment data as well as developing a research proposal and several indicated that they work with the regional lab in conferences. Remaining comments were general, relating to the review of research proposals and to the maintaining of liaison with regional office personnel.

"III. 2) g) Does your RCU provide services to local school districts within your state?"

Thirty-six of the responding RCU directors indicated that their RCU does provide services to local school districts within the state.

Consultation

Nineteen RCU directors indicated that the activities of their RCU relative to local districts fall into the classification of consultant activities. Specific comments include: defining research problems and preparing proposals, developing research project applications; evaluating research project applications prior to submitting them to the division or to the U.S.O.E.; developing and administering data gathering instruments; identifying consultants for research projects; instruction of evaluation programs; setting up criteria for follow-up studies; independent evaluation of the results of trial programs; technical assistance on the design and monitoring phase of the project proposa; system-wide evaluation of the occupational education programs in a local school.

Dissemination

Eight RCU directors indicated that they engage in activities which fall under the heading of dissemination. Comments include: communicating with local districts through the newsletter; the use of a learning resource center in terms of hard copy research documents or the use of microfiche; many instances of providing information from ERIC files; dissemination of information; reference and curriculum materials have been provided on a long-term or loan basis; publications of interest related to research possibilities; and summaries of research findings.

Active Involvement

Thirteen RCU directors indicated that their RCU actively participates to some extent in research projects. This includes: funding of projects; performing surveys and studies of Voc-Ed needs; the designing of a curriculum for high school students incorporating necessary vocational subjects; conducting local surveys for the establishing of area vocational schools; conducting research training workshops; funding of R & D programs; implementing research; development of a core vocational program; planning and directing activities designed to develop research competency; conducting training sessions on the design and development of research.

Remaining comments relating to involvement with local school systems include helping some local school personnel received advanced degrees, and one RCU director indicates little local recognition of the RCU as such is forthcoming because it appears that local administrators classify the RCU as part of the state department of education rather than as a separate research unit.

APPENDIX C

State Director Questionnaire

Attached is a copy of the survey instrument used to collect data from state directors of vocational education.

APPENDIX C

State Director

I. A. Included below are 15 objectives toward which RCU's might be working. In the boxes at the left, marked Priority Rank, please place the numbers of up to six statements which most nearly represent the objectives of the Research Coordinating Unit in your state. Place the number of the most important objective in box 1, the second most important objective in box 2, the third most important objective in box 3, and so on to box 6. In making this ranking, please think in terms of the importance of each objective for your state's RCU rather than for RCU's in general.

PRIORITY RANK

1. ☐
2. ☐
3. ☐
4. ☐
5. ☐
6. ☐

1. To disseminate information on progress and applicational research.

2. To survey available data on employment opportunities, occupational trends and future job projections for use in planning vocational programs, curricula, facilities, teacher training, recruitment in the state.

3. To create change in the administration of local vocational education programs.

4. To coordinate occupational education research activities conducted by state departments, local school districts, colleges and universities and nonprofit organizations.

5. To coordinate occupational education research activities conducted within the state with those being conducted outside the state.

6. To act as a clearinghouse for all federal financial and other statistical reports relating to expenditure (accounting) of federal funds and program enrollments, etc.

7. To identify and maintain an inventory of available occupational research and development resources in the state.

8. To stimulate activities, including pre-service and in-service training which would result in increased interest and improved competence in research.

9. To serve as a statistical research reporting service for the State Department of Education.

10. To review and monitor occupational research and development projects.

11. To stimulate and encourage occupational education research and development activities in state departments, local school districts, colleges and universities, and nonprofit organizations.
12. To conduct occupational research and development projects.
13. To initiate research projects through involvement of RCU staff in proposal-writing.
14. To determine occupational research needed to resolve the major vocational education issues and problems.
15. To identify issues and problems relating to the nature and place of vocational education in the state school system.
16. Other (Specify) (Add additional pages if necessary)

State Director of Vocational Education

DIRECTIONS

Please answer the questions in the following questionnaire on the basis of your knowledge. If a question does not apply or if you cannot answer it, please indicate by writing NO ANSWER in the space below the question item. (It is assumed that not everyone will respond to all items.) In all questions RCU refers to Research Coordinating Unit.

1. Your name and title.

   ______________________________ ______________________________
   Name Title

   ____
   Address

2. How long have you held this position? ______________________________

3. What is the name of the Research Coordinating Unit Director in your state?

   ____

   1) How is he appointed? (Check one)

      _____a) Civil Service
      _____b) Selected by professionals in the field
      _____c) Individual discretion of the University
      _____d) Individual discretion of the State Department
      _____e) Other (Specify)______________________________

4. How familiar are you with the RCU and its director in your state?

   Very
   Familiar /---------/---------/---------/---------/---------/ Unfamiliar

5. What is your present administrative position in relation to the RCU administrative structure?

   ( ) RCU Director is directly responsible to me
   ( ) Responsible only for matters of financing RCU
   ( ) Indirect administrative lines to RCU Director
   ( ) No definable channels of administrative responsibility to RCU Director
   ( ) Other (describe)

6. In what kinds of activities did you engage during the establishment process of your state's RCU?

   ( ) Conferences
   ( ) Meetings with key individuals
   ( ) Contact with personnel in USOE
   ( ) Contact with University Vocational Education personnel

6. CONTINUED

   ( ) Contact with local vocational directors, principals, superintendents
   ( ) Not involved
   ( ) Other (Please specify)

7. What was the primary role of the State Director in these planning activities?

   ( ) Administrative officer responsible for total program
   ( ) Responsible for approving proposal applications to USOE
   ( ) Role not easily identifiable
   ( ) No direct responsibility for establishment processes and procedures

8. On what RCU matters do you actually make final decisions? (Please list briefly)

9. How often do you visit with the RCU Director for planning purposes?

   ( ) Daily
   ( ) Weekly
   ( ) Monthly
   ( ) 3 or 4 times each month
   ( ) 3 or 4 times each year
   ( ) have never met

   a) Are minutes or other written records kept of these meetings? ____Yes ____No

10. Has any evaluation of the administrative structure and operation of the RCU been conducted? ____Yes ____No

    IF YES

    a) Were you involved in this evaluation? ____Yes ____No
    b) Did the evaluation indicate that any changes in administrative structure or operation were desirable? ____Yes ____No
    c) What specific changes, if any, occurred in the operational structure?

    d) Is a copy of the report of evaluation available? ____Yes ____No

11. Are you a member of any boards, councils, advisory groups, etc., which are directly related to RCU operation? ____Yes ____No

    a) If yes, please list:

12. Please list the topics of at least three requests for information you have addressed to your RCU Director in the last three (3) months.

13. Are you on the RCU regular mailing list? ____Yes ____No

14. What kinds of information and other materials do you receive?

    ( ) Newsletter
    ( ) Bulletins
    ( ) Catalogs
    ( ) Directories
    ( ) Research Briefs
    ( ) Memorandums
    ( ) Other (please specify)

15. In what ways is this information useful?

The following questions relate directly to your view of the RCU in your state. Please respond to each question to the best of your knowledge regardless of the extent of direct relationship to the RCU. The researchers are interested in your reactions; in how you see the RCU as represented by these questions and areas of concern.

16. Do you feel the staff of the RCU is adequate in numbers and a bility to conduct the activities assigned to the UNIT? ____Yes ____No (please explain)

17. Has the RCU been directly involved in identifying issues and problems relating to vocational education in your state? ____Yes ____No

IF YES:

a) What kinds of activities were utilized to carry out this process?

( ) Brainstorming sessions with state voc-ed staff.
( ) Surveys
( ) Conferences
( ) Seminars
( ) Professional group meetings
( ) Meetings with local voc-ed people (instructors, directors, etc.)
( ) Meetings with university voc-ed personnel
( ) Advisory Councils or Boards
( ) Meetings with key legislators
( ) Other (please specify)

b) List five (5) or more major issues and/or problems identified through the above activities.

18. What has the RCU done to instigate or stimulate research directed at solving the problems or meeting the issues identified which you listed in item 17b?

19. Does the RCU in your state work actively with the Ohio State BRIC Center? ____Yes ____No

20. How does the RCU promote the use of BRIC materisls and/or other similar information and materials developed by the RCU itself?

21. Does the RCU in your state have a Resource Center for:
Information collection ____Yes ____No
Data processing ____Yes ____No
Date storage ____Yes ____No
Information dissemination ____Yes ____No

a) Is it utilized regularly by:
Your office ____Yes ____No
Universities ____Yes ____No
Local districts ____Yes ____No
Others (specify) ____Yes ____No

22. Are materials disseminated from the Resource Center current and up-to-date? ___Yes ___No

23. Has the RCU developed a list of priority research topics? ___Yes ___No

24. If the RCU makes an effort to coordinate occupational research activities throughout the state, list a few examples below:

   a) Between People
   b) Between Agencies
   c) Do you believe this has been successful? ___Yes ___No
   d) Has it eliminated duplication of research activities? ___Yes ___No

25. List the five (5) most significant undertakings in which the RCU has participated.

   a) Why did you pick these five (5) undertakings as the most significant?

26. How successful has the RCU been in stimulating occupational education research throughout the state?

HIGHLY
SUCCESSFUL /-----/-----/-----/-----/-----/ UNSUCCESSFUL

27. Have the competencies of occupational education researchers been improved, on the levels indicated, throughout the state? (Check where appropriate)

	IMPROVED GREATLY	NO CHANGE
A-State Level	/-------/-------/-------/-------/-------/------/	
B-RCU personnel	/-------/-------/-------/-------/-------/------/	
C-University Level	/-------/-------/-------/-------/-------/------/	
D-Local level	/-------/-------/-------/-------/-------/------/	

E-What evidence can you cite which suggests that there has been improvement in the ability of these people to do research? (Please cite a few examples)

28. Have there been impediments to the successful development and operation of the RCU in your state? ___Yes ___No

IF YES, discuss briefly.

29. Briefly discuss your view of the functions the RCU actually performs in your state. (Where does it fit in? What does it accomplish? What could not be done if the RCU did not exist?)

30. In a general statement indicate any additional concerns or beliefs you have about the RCU (ie, its overall effectiveness, its strengths and weaknesses, its opportunity for future success, its role as a "Change Agent" for improving vocational education programs through research and development, etc.).

APPENDIX D

Summary of State Director Questionnaire Data

The following material represents a collection of responses by state directors of vocational education taken from the questionnaire shown in Appendix C.

APPENDIX D

SUMMARY OF STATE DIRECTOR OF VOCATIONAL EDUCATION QUESTIONNAIRE DATA

Of the fifty state director questionnaires sent out, thirty-six questionnaires were returned. The first part of the questionnaire dealt with the priority ranking of six possible RCU objectives from a suggested list of fifteen. A complete tally of responses to this section is shown in Chapter II, Table II, page 19. A synthesis of the three most frequently chosen objectives for each priority rank reveals the following:

Priority Ranking	Objective Selected	Frequency	% Selecting Objective
1	11	7	19.4
	2	6	16.6
	1	4	11.1
2	11	8	23.0
	4	7	20.0
	12	4	11.4
3	2	7	21.2
	1	6	18.2
	11	5	15.2
4	4	6	16.6
	1	5	14.0
	2	4	11.1
5	14 & 11*	5	14.7
	12 & 7*	4	11.7
	10 & 15*	3	8.9
6	1	6	17.1
	8	5	14.3
	13	4	11.4

* Equally chosen

The remainder of this questionnaire (beginning with question number four) requested responses to open-ended, rank-type and yes-no questions. A summary of findings follows.

"4. How familiar are you with the RCU and its director in your state?"

Very 24 5 0 0 0
Familiar /------/------/------/------/------/ Unfamiliar

"5. What is your present administrative position in relation to the RCU administrative structure?"

Half of the respondents said that the RCU director is directly responsible to them and the other half said they had indirect administrative lines to the RCU director.

"6. In what kinds of activities did you engage during the establishment process of your state's RCU?"

Respondents indicated that activities included: (1) conferences, (2) meetings with key individuals, (3) contact with personnel in U.S.O.E., (4) contact with university vocational education personnel, (5) contact with local vocational directors, principals, superintendents.

"7. What was the primary role of the State Director in these planning activities?"

The majority of the respondents felt the responsibility for approving proposal applications for the U. S. Office of Education was paramount. It was also felt that the role of the administrative officer responsible for the total program was important. Six directors were elusive in their reply stating that the role of the state director is not easily identifiable.

"8. On what RCU matters do you actually make final decisions?"

Two state directors responded that they make all final decisions and seven state directors responded they make no decisions. Generally, the state director confers with the RCU director in matters of financing and budget.

"9. How often do you visit with the RCU Director for planning purposes?"

The majority of the respondents meet monthly and weekly. Six individuals claim they meet daily while a few individuals said that they met three or four times each month. Some indicated three or four times each year.

When asked if minutes were kept of these meetings, five out of thirty-one respondents replied affirmatively.

"10. Has any evaluation of the administrative structure and operation of the RCU been conducted?"

Yes 11 No 24 (31% yes)

Of those that replied affirmatively, ten were involved in evaluation, and only five answered yes to whether the evaluation indicated that any changes in administrative structure or operation were desirable.

"11. Are you a member of any boards, councils, advisory groups, etc., which are directly related to RCU operation?"

Yes 18 No 14 (56% yes)

"12. Please list the topics of at least three requests for information you have addressed to your RCU Director in the last three (3) months."

Information requested of the RCU director in the last three months clustered in four general areas: (1) information regarding a plan for area vocational schools, (2) information concerning follow-up studies of vocational education students, (3) available data on national vocational education evaluations, (4) information regarding a master plan for the state in vocational education.

"13. Are you on the RCU regular mailing list?"

Yes 35 No 0 (100% yes)

"14. What kinds of information and other materials do you receive?"

Most state directors indicated that they received research briefs, memorandums, newsletters, bulletins, catalogues, and directories.

"15. In what ways is this information useful?"

The state directors indicated that the information helped them plan administratively and helped them keep informed and abreast of developments in the field.

"16. Do you feel the staff of the RCU is adequate in numbers and ability to conduct the activities assigned to the UNIT?"

Yes 13 No 21 (38% yes)

In additional comments, thirty-one of the thirty-four respondents indicated that they felt the RCU was understaffed.

"17. Has the RCU been directly involved in identifying issues and problems relating to vocational education in your state?"

Yes 28 No 6 (82% yes)

The kinds of activities that were utilized to carry out this process involved: (1) meetings with local vocational education people, (2) surveys, (3) brainstorming sessions with state vocational education staff, (4) acting on advisory councils or boards, (5) conferences, (6) professional group meetings, (7) meetings with university vocational education personnel, and (8) seminars.

The major issues and problems identified through the previously mentioned activities was that research was not being implemented and priorities should be developed. Others felt that a system of follow-up was necessary and teacher education needed much improvement in the area of vocational education.

"18. What has the RCU done to instigate or stimulate research directed at solving the problems or meeting the issues identified?"

The state directors said that RCU's meet with local people, college students and teachers in an attempt to fill in the information gaps. Some progress has been made in developing follow-up studies in the area of vocational education.

"19. Does the RCU in your state work actively with the Ohio State ERIC Center?"

Yes 30 No 2 (93.7% yes)

"20. How does the RCU promote the use of ERIC materials and/or other similar information and materials developed by the RCU itself?"

The RCU has encouraged the use of ERIC materials by making them known to people who might be concerned or by conducting seminars and workshops. The most convenient method of information dissemination is the RCU newsletter. Three of the RCU's abstract completed research and send these abstracts to people they think will be interested.

"21. Does the RCU in your state have a Resource Center for:

Information collection	23 Yes	13 No	(64% yes)
Data processing	13 Yes	22 No	(37% yes)
Data storage	15 Yes	20 No	(41% yes)
Information dissemination	25 Yes	10 No	(71% yes)

a. Is it utilized regularly by:

Your office	19 Yes	16 No	(54% yes)
Universities	12 Yes	23 No	(34% yes)
Local districts	12 Yes	23 No	(34% yes)

"22. Are materials disseminated from the Resource Center current and up-to-date?"

Yes 28 No 1 (96% yes)

"23. Has the RCU developed a list of priority research topics?"

Yes 20 No 13 (61% yes)

"24. If the RCU makes an effort to coordinate occupational research activities throughout the state, list a few examples."

The examples listed were mainly: (1) advisory committees to coordinate research, (2) meetings held with people throughout the state to discuss vocational education priorities, (3) meeting with local vocational education directors, (4) participation between agencies on research problems, (5) preparing research proposals.

When asked if the RCU had successfully coordinated occupational education research, eleven state directors said yes and twenty-four said no. When asked if they felt the coordination of occupational education research by the RCU had eliminated duplication of research activities, fourteen state directors said yes, and eighteen said no.

"25. List the five most significant undertakings in which the RCU has participated."

The state directors responding indicated the following: (1) there was a coordination of on-going research projects; (2) the RCU's developed a research consciousness in vocational educators; (3) follow-up studies were developed; (4) a program of evaluation on the secondary level was initiated; (5) surveys in the area of adult education and home economics were undertaken.

"26. How successful has the RCU been in stimulating occupational education research throughout the state?"

Highly Successful	2	8	11	7	2	Unsuccessful

"27. Have the competencies of occupational education researchers been improved, on the levels indicated, throughout the state?"

	Improved Greatly					No Change
A. State level	2	5	11	4	2	2
B. RCU personnel	8	11	6	0	0	1
C. University level	2	6	4	3	2	3
D. Local level	0	5	5	3	9	1

"E. What evidence can you cite which suggests that there has been improvement in the ability of these people to do research?"

One comment stated: an increase in research proposals.

"28. Have there been impediments to the successful development and operation of the RCU in your state?"

Yes 24 No 7 (77% yes)

State directors indicated that the major impediment is money. Lack of funds and its associated problem, inadequate staff, are the chief impediments to the development and operation of the RCU. In addition, a related staffing problem is one of insufficient research capability for the unit. Staff turnover is rapid and this is an impediment to the overall functioning of the RCU.

Another impediment noted is resistance to new ideas at the state department level and resulting difficulties in coordination of efforts between state department, RCU staff, and university staff.

"29. Briefly discuss your view of the functions the RCU actually performs in your state."

A majority of the state directors felt that the role of the RCU is to stimulate research activity. Seven of the respondents see the RCU as an extension of the state department of education mainly because it is located there. On the other hand, four responded that the RCU should not be a part of the state department of education. Other comments included: the RCU should act as a liaison between the state department of education and the university; the RCU is the only unit allowed to conduct research in vocational education; it does not fit in; it accomplishes very little.

"30. In a general statement indicate any additional concerns or beliefs you have about the RCU (i.e., its overall effectiveness, its strengths and weaknesses, its opportunity for future success, its role as a 'Change Agent' for improving vocational education programs through research and development."

> Comments from state directors of vocational education included: (1) the RCU stimulates research at the graduate level; (2) the RCU initiates vocational education research; (3) the RCU encourages local agencies to participate in self evaluation of their programs; (4) the RCU should be located in the state department of education; (5) the RCU has been unable to finance research projects; (6) the RCU needs to conduct more research for planning purposes; (7) the state director of vocational education must keep the RCU from operating extraneous to its purpose; (8) the RCU must apply research already conducted; (9) the RCU must develop better public relations.

An item by item analysis of the state director questionnaire revealed that there was no significance between the variables (1) RCU's operating less than two years versus RCU's operating more than two years, (2) RCU's located in the state department of education versus RCU's located in universities. Rather, the responses tended to be similar in nature to the total responses of all the state directors.

APPENDIX E

Local and University Questionnaire

Following is a copy of the survey instrument used to collect data from local and university vocational education personnel.

APPENDIX E

Local and University

DIRECTIONS:

Please answer the questions in the following questionnaire on the basis of your knowledge and professional responsibilities. If a question does not apply or if you cannot answer it, please indicate by writing NO ANSWER in the space provided below on the question item. It is assumed not everyone will respond to all questions. In all questions the Research Coordinating Unit is referred to as the RCU.

If you have never heard of the Research Coordinating Unit. /__/

- -

Answer the lettered questions either YES or NO. If the question is YES, complete the subquestions below the item, but if the question is answered NO, Continue to the next lettered item.

A. Has the RCU helped stimulate research in your geographic region?
___Yes ___No

1. What activities did the RCU specifically conduct to stimulate research in your geographic region? (Check appropriate items)

____Seminars
____Conferences
____Consultation
____Pre-Service Training
____In-Service Training
____Television Programs
____Newspaper Articles
____RCU Publications
____Establish Resource Center
____Develop Educational Films
____Other (Specify)
____Other (Specify)

2. What was accomplished through the help of the RCU? (ie, new projects started, more people now involved in research, etc.)

3. Of what specific value are these accomplishments? (Check in the appropriate place)

EXTREMELY
VALUABLE /-------/-------/-------/-------/-------/ DETRIMENTAL

4. Would these activities all have occurred without RCU involvement?

___Probably ___Probably Not

B. Has the RCU helped to improve research competency in your region?
___Yes ___No

1. What RCU sponsored activities were conducted in your region to improve research competency? (Check appropriate item)

____Seminars
____Conferences
____Consultation
____Pre-Service Training
____Newspaper Articles
____RCU Publication
____Establish Resource Center
____Develop Education Films

____Television Programs
____In-Service Training
____Other (Specify)
____Other (Specify)

2. What was accomplished by these activities? (ie, was research made more relevant? More valid?)

3. Of what value to Occupational Education in your state were these activities? (Check in the appropriate place)

EXTREMELY
VALUABLE /-------/-------/-------/-------/-------/ DETRIMENTAL

4. Would these activities all have occurred without RCU involvement?

____Probably ____Probably Not

C. Has the RCU helped you to conduct research in your region?

____Yes ____No

1. What activities were undertaken by the RCU to help you conduct research in your region? (Check appropriate items)

____Seminars
____Conferences
____Consultation
____Pre-Service Training
____In-Service Training
____Television Programs
____Newspaper Articles
____RCU Publication
____Establish Resource Center
____Develop Educational Films
____Other (Specify)
____Other (Specify)

2. What was accomplished by these activities? (ie, provided advice, obtained sources of funding)

3. Of what value in research activities were these particular achievements? (Check in the appropriate place)

EXTREMELY
VALUABLE /-------/-------/-------/-------/-------/ DETRIMENTAL

4. Would these activities all have occurred without RCU involvement?
____Probably ____Probably Not

5. Has the RCU conducted research in your geographic region for purposes of its own that didn't concern you directly? ____Yes ____No

6. Has any research been integrated into any vocational or occupational programs in your region? ____Yes ____No

7. List the five (5) most significant research undertakings in your geographic region with which you were involved.

8. Why did you decide these projects were the most significant?

9. Have you undertaken research projects without RCU involvement?

D. Has the RCU coordinated your research with the research of other agencies?

____Yes ____No

1. Have you submitted projects to the RCU for review? ____Yes ____No

2. Has the RCU monitored research for you? ____Yes ___NO

E. Has the RCU provided you with information on progress and application of occupational education research? ____Yes ____No

1. What activities has the RCU conducted to provide you with information on occupational education research? (Check appropriate items)

____Seminars
____Consultation
____Conferences
____Pre-Service Training
____In-Service Training
____Television Programs
____Newspaper Articles
____RCU Publications
____Establish Resource Center
____Develop Educational Films
____Other (Specify)
____Other (Specify)

2. Has this information made you more knowledgeable in occupational education research? ____Yes ____No

3. Was the information pertinent and valuable to your problems? ____Yes ____No

4. When did you last seek information from the RCU? (Check one)

____Last Month ____3 Months Ago ____6 Months Ago ____1 Year Ago ____Never

5. Was the information provided by the RCU adequate? ____Yes ____No

F. Does the RCU maintain a current and up-to-date file of related data on occupational and vocational research? ____Yes ____No

1. What techniques are used by the RCU to make this collection of data available to you?

2. Does the RCU promote the use of ERIC materials? ____Yes ____No

3. Do you receive any information from the RCU resource center? ____Yes ____No

4. Have you established your own information center? ____Yes ____No

5. Did the RCU influence the establishment of your own information center? ____Yes ____No

G. Do you receive information from the RCU? ____Yes ____No

1. By what method do you receive this information? (Check appropriate item)

____Quarterly reports
____Telephone
____Catalogues
____Consultation
____Special bulletins
____Newsletters
____Memorandums
____Other (Specify)

2. Is the material received from the RCU up-to-date? ____Yes ____No

3. Do you receive enough information from the RCU for your needs? ____Yes ____No

4. When you undertake a research project do you contact the RCU for information relating to the project? (Check appropriate place)

OFTEN /-------/-------/-------/-------/-------/ NEVER

H. Has the RCU identified, or helped to identify, problems in vocational and occupational education in your region? ____Yes ____No

1. Has this information helped to achieve and/or implement needed research in these problem areas? ____Yes ____No

2. With what groups or individuals do you work in identifying problems?

3. What has the RCU done to instigate or encourage research in the problem areas identified? (ie, send out reports of needed research, identify and emphasize much needed research, develop a list of priority topics.)

RELATED QUESTIONS

1. Please rate the effects of the RCU upon vocational education practices in your state. (Check appropriate place)

STRONG POSITIVE EFFECT /-------/-------/-------/-------/ STRONG NEGATIVE EFFECT

2. Have any programs in your school been modified or have new programs been developed as a result of the RCU program?

APPENDIX F

Summary of Local and University Questionnaire Data

The following is a summary of information and responses from the local and university questionnaire shown in Appendix E.

APPENDIX F

SUMMARY OF LOCAL AND UNIVERSITY QUESTIONNAIRE DATA

The following is a summary of responses from questionnaires sent to local and university personnel in states having RCU's.

Of these 278 questionnaires sent out, eighty-two were sent to personnel in vocational education programs in universities and 196 were sent to local vocational education directors and supervisors in high schools, post-secondary schools, technical schools, and junior colleges. Two hundred nineteen of the 278 questionnaires were returned. Sixty-seven were received from university professors, and 152 from local directors. Of the sixty-seven professors responding, twenty-three said they knew nothing of the RCU. Of the 152 local directors of vocational education responding, seventy-two knew nothing of the RCU's function, leaving 119 responses upon which to base this summary.

"A. Has the RCU helped stimulate research in your geographic region?"

Yes 79 No 23 (77% yes)

Respondents indicated that the main activities through which the RCU had helped to stimulate research in their area were RCU publications, consultation with various people involved, conferences and seminars, establishing a resource center, newspaper articles, and in-service training programs. The majority, sixty-three of ninety-two respondents, indicated they felt the RCU's main accomplishment was initiating research projects. Others felt that the dissemination of information and establishing a research center had been important. The respondents rated the value of the RCU's accomplishment on a five point scale from extremely valuable with a value of five to detrimental with a value of one. Responses were distributed as follows:

Extremely 26 34 13 10 3
Valuable /-----/-----/-----/-----/-----/ Detrimental

The mean value of the ratings was 3.8 indicating a rating of just below valuable. Sixty-five of eighty-seven respondents felt that these activities would not have occurred without RCU involvement.

"B. Has the RCU helped to improve research competency in your region?"

Yes 70 No 31 (69% yes)

Respondents indicated that RCU activities to improve research competency were publications, consultation, conferences, seminars, in-service training, resource center being established for their benefit, and published newspaper articles. Respondents felt that research in vocational education was made more relevant and more valid, that they were made more aware of research and its value, and that they had increased their own research efforts. They felt they had become better trained researchers, and had a better understanding of applicable research through the accomplishment of these activities conducted by the RCU activities. When asked to rate on a five point scale the value to occupational education in their state of these activities conducted by the RCU, the ratings were as follows:

Extremely 17 30 2 5 3
Valuable /-----/-----/-----/-----/-----/ Detrimental

The mean value was 3.7 indicating that overall respondents felt the activities conducted by the RCU were valuable to occupational education. Fifty-seven of seventy-five indicated these activities could not have occurred without involvement in the RCU.

"C. Has the RCU helped you to conduct research in your region?"

Yes 50 No 51 (49% yes)

Respondents indicated that RCU consultation with them was the greatest help. They also indicated that conferences, RCU publications, resource center being established, seminars and newspaper articles were important as well. They also indicated the RCU had helped them attain sources of funding of their projects and had aided them in proposal writing. Respondents indicated that overall these activities had value as follows:

Extremely 20 20 14 6 3
Valuable /-----/-----/-----/-----/-----/ Detrimental

The mean value was 3.8.

When asked if these activities would have occurred without RCU involvement, thirty-eight of sixty-two responded they did not think so.

When asked if the RCU had conducted research in their geographic region for purposes of its own that did not concern them directly, fifty-three out of sixty-six indicated it had. Asked if any research had been integrated into any vocational or occupational program in their region, fifty-five of sixty-eight answered yes. Primarily, the regional research undertakings in which the local and university people were involved were as follows: surveys of vocational education; issues and needs; vocational education training; follow-up projects; occupational analyses; and information and evaluation of on-going vocational education programs. When asked why they decided the above projects were most significant, they indicated that these research projects had the greatest applicability and met the greatest need. Also, they helped to identify, clarify, and enlighten respondents of vocational education needs. Asked if they had undertaken research projects without the RCU involvement, sixty-seven of eighty-nine indicated that they had.

"D. Has the RCU coordinated your research with the research of other agencies?"

Yes 22 No 58 (27.5% yes)

When asked if they had submitted projects to the RCU for review, forty-one respondents indicated that they had and forty-six indicated that they had not. When asked if the RCU had monitored research for them, thirty-two indicated that they had, fifty-eight indicated that they had not.

"E. Has the RCU provided you with information on progress and application of occupational education research?"

Yes 81 No 19 (81% yes)

Asked what activities the RCU had conducted to provide them with information on occupational education research, they responded that primarily the RCU had sent specific publications in the form of newsletters and special bulletins. Other methods of providing them with information were conferences, seminars, consultation services, resource centers--established for their benefit, and newspaper articles. When asked if this information had made them more knowledgeable in occupational education research, seventy out of eighty-six responded favorably. Sixty-three of seventy respondents felt the information provided by the RCU was indeed pertinent and valuable to their specific problems. It was asked when they last sought information from the RCU. Thirty-one indicated that they had done so within the last month, nineteen within the last three months, eleven within the last six months, fourteen within the last year, and nineteen had never sought information at all. Of those that did seek information, sixty-one of the seventy-five felt the information provided by the RCU was adequate.

"F. Does the RCU maintain a current and up-to-date file of related data on occupational and vocational research?"

Yes 64 No 6 (91% yes)

Asked what techniques were used by the RCU to make this collection of data available to them, they indicated that primarily newsletters, separate publications, and conferences and seminars provided the bulk of information collected. Some indicated that a library of resource materials and microfiche was also of value. When asked if the RCU promoted the use of ERIC materials, sixty-six of seventy-one indicated that it did. When asked if they specifically received any information from the RCU resource center, seventy-one of eighty-six replied they did. When asked if they had established their own information center, thirty-one of eighty-seven replied that they had. When asked if the RCU influenced the establishment of that information center, eighteen indicated that it had.

"G. Do you receive information from the RCU?"

Yes 86 No 17 (84.5% yes)

When asked by what means they received this information, respondents indicated newsletters and special bulletins were used to disseminate information to them. Telephone calls, consultation, and memorandums sent out by the RCU were also of value. Some indicated that quarterly reports distributed by the RCU helped them to keep up-to-date with information in vocational education. When asked if the materials received from the RCU were up-to-date, eighty-five out of eighty-eight responded that they were. When asked if the information received from the RCU was enough for their particular needs, forty-one of seventy-five indicated that it was. When asked if they contacted the RCU for information relating to new research projects, responses were distributed as follows:

"4. When you undertake a research project do you contact the RCU for information relating to the project? (Check appropriate place)"

22 14 19 11 14
Often /-----/-----/-----/-----/-----/ Never

"H. Has the RCU identified, or helped to identify, problems in vocational and occupational education in your region?"

Yes 67 No 29 (69.7% yes)

When asked whether the information helped to achieve and/or implement needed research in these problem areas, forty-nine of the sixty-seven indicated that it did. When asked with which groups or individuals they worked, most indicated work with teachers in vocational education, state agencies, and advisory councils. Some respondents indicated that they were involved with business and industry personnel, and with directors of instruction at the university level. The respondents were asked what the RCU had done to instigate or encourage research in the problem areas that had been previously identified. The replies indicate the RCU had first of all identified needed research, set up a priority list of topics for vocational education research, and sent out reports to people in the field working on research projects.

When asked to rate the effects of the RCU upon vocational education practices in their state, respondents replied as follows:

Strong Positive Effect	12	29	41	9	5	Strong Negative Effect

The average value of this rating (mean=3.5) indicated that the RCU had some effect on the vocational education practices in their state. When asked if any programs in their school had been modified or new programs been developed as a result of the RCU program, the response was negative. Forty-seven felt that no programs had been modified or new programs developed, nineteen felt there had been, ten felt that the RCU had the potential to do so but had not.

An item by item analysis on the tabulated numerical data revealed no significant differences on the variables (1) state department affiliated versus university affiliated RCU's, (2) RCU's in operation less than two years versus RCU's in operation more than two years, and (3) university respondents versus local director respondents. Rather, the tabulated responses obtained from the different variables were closely similar in nature to the responses obtained from the totals of the 119 local and university personnel responding.

APPENDIX G

U.S.O.E. Files Evaluation Guide

Following is a copy of the instrument used to evaluate RCU materials (quarterly reports, publications, etc.) on file in the U. S. Office of Education.

EVALUATION GUIDE

Evaluated by__________________________ Title______________________________
Date of Report________________________ State______________________________
Quarterly______ Annual______ Final______ Research______ Other__________

I. CONTENT

A. Amount of material

1. Words______

2. Pages______

B. Amount of Useful Material

High Low

/----------/----------/----------/----------/----------/----------/

II. EXPOSITION

A. Does report have a clear introduction that tells reader exactly what the report will cover?

High Low

/----------/----------/----------/----------/----------/----------/

B. Does report cover what it says it will?

High Low

/----------/----------/----------/----------/----------/----------/

C. Are the conclusions/summary adequate?

High Low

/----------/----------/----------/----------/----------/----------/

III. STRUCTURE

A. Is material in logical order?

High Low

/----------/----------/----------/----------/----------/----------/

B. Is it readable?

High Low

/----------/----------/----------/----------/----------/----------/

C. Is it legible?

High Low

/----------/----------/----------/----------/----------/----------/

D. Does it communicate (make sense)?

High Low

/----------/----------/----------/----------/----------/----------/

IV. MECHANICS

A. Grammar

High Low

/----------/----------/----------/----------/----------/----------/

B. Overall appearance

High Low

/----------/----------/----------/----------/----------/----------/

V. REPETITION OF MATERIAL IN OTHER REPORTS WITHIN THE RCU

Much Little

/----------/----------/----------/----------/----------/----------/

Research Report(s)

VI. THEORETICAL

High Low

/----------/----------/----------/----------/----------/----------/

VII. COMMENTS:

APPENDIX H

U.S.O.E. Files Evaluation Summary

The following is a brief summary of the evaluation of RCU materials (quarterly reports, publications, etc.) on file in the U. S. Office of Education.

APPENDIX H

SUMMARY OF EVALUATION OF RCU FILES - U.S.O.E.

The purpose of analyzing the RCU files in the U. S. Office of Education was to gain more insight about the RCU's as specifically stated in the proposal. The files of RCU's previously selected for the case studies were selected for examination. The information obtained from those files gave an indication of what type of research coordinating unit existed in these states based primarily upon the content of quarterly reports submitted to the U. S. Office of Education. Quality of written reports corresponded closely to the perceived success of the RCU's studied in depth. Those which were considered to be operationally successful typically submitted well written, complete, quarterly reports. RCU's which had experienced difficulties tended to forward reports containing grammatical errors, used poor formats and were poorly written. It should be emphasized that this was an impression obtained specifically from the reports.

Much of the material found in the files was unrelated to the RCU function, and the relationship of the RCU to some of this material was unclear and extremely vague. In many cases research projects included were actually done by the state department, by private organizations, or by other state agencies. There was no apparent relationship to the RCU. If the RCU had initiated these projects, no acknowledgment was given.

Many of the quarterly reports analyzed were redundant. Information initially presented in one quarterly report would be repeated in the next quarterly report. However, the written material over all was of high quality. The reports were generally well written and the information content was of great value to individuals unacquainted with a particular RCU.

Two conclusions are predicted on the analysis of the material in the U. S. Office of Education files: (1) it would appear that quarterly reports are not necessary and that reports could be submitted semi-annually or annually, thus limiting the amount of redundant material, and (2) research project proposals and final reports of research projects could be limited to an abstract form. The abstract forms of these particular proposals and final reports and summaries of final research projects could then be attached to the semi-annual reports and submitted with them. The final reports could be obtained from the RCU's upon request by the Washington, D. C. office as needed.

In summary, the examination of the RCU files did not provide as much insight or information for the project as was expected. The information obtained was of limited value and only limited inferences could be made. The material in the files had little bearing on the project final report and recommendations. A copy of the evaluation guide used to rate the reports analyzed in the RCU files will be found in Appendix G.

APPENDIX I

Case Study Interview Guide

Following is a copy of the interview guide used while conducting case studies in seven selected states.

INTERVIEW GUIDE

WHO I AM
DEPTH STUDY

GET PICTURE OF RCU
WANT YOU TO TALK

CONFIDENTIALITY

☐ A. OUTSTANDING FEATURES

☐ B. WHAT DONE DIFFERENTLY?

☐ C. WHAT OTHER THINGS DOES RCU DO?

☐ D. SPECIFIC ASPECTS OF PROGRAM
  1. Location
  2. Administrative Structure
  3. Staff Adequacy
  4. Director Selection
  5. RCU Director
    a) Role
    b) You call on?
    c) Leader in Voc. Ed.?
  6. RCU Staff: leaders in Voc. Ed. Research?

☐ E. RCU SUCCESSFUL INCREASE RESEARCH IN OCCUPATIONAL EDUCATION? (Ex.)
  1. You involved?
  2. Quality & Value
  3. Improve quality researchers?
    a) How
    b) How many
    c) How long

☐ F. COLLECT AND DISSEMINATE INFO?
  1. How
  2. Examples you receive
  3. Quality
  4. How do you use?

☐ G. RCU WORK JOINTLY WITH OTHER AGENCIES?
  1. Examples
  2. What done?
  3. Relations improved?
  4. Greater education work by agencies

☐ H. ISSUES & PROBLEMS IDENTIFIED
  1. How
  2. You or staff involved
  3. Problem importance?

☐ I. RCU ACTIVITIES WELL KNOWN HERE?
  1. Why
  2. How become better known

☐ J. EFFECT OF POLITICAL CLIMATE
  1. How (limit) (enhance)
  2. Finance problem?

☐ K. VOCATIONAL EDUCATION IMAGE CHANGED?
  1. Effect of RCU?

☐ L. RCU ROLE IN FUTURE OF OCCUP. ED.

☐ M. OTHER INFORMATION I SHOULD HAVE?

APPENDIX J

Task Force Members

Following is a list of names of members of the project Task Force.

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